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L2 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2004:203469 HCAPLUS  
DOCUMENT NUMBER: 140:213573  
TITLE: Method for **sterilizing** and/or deactivating  
adventitious agents associated with biological  
materials  
INVENTOR(S): **Shimp, Lawrence A.**  
PATENT ASSIGNEE(S): USA  
SOURCE: U.S. Pat. Appl. Publ., 10 pp., Cont.-in-part of Appl.  
No. PCT/US2002/00102.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004048371	A1	20040311	US 2003-614448	20030707
WO 2002070024	A1	20020912	WO 2002-US102	20020104
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
PRIORITY APPLN. INFO.:			US 2001-259680P	P 20010104
			WO 2002-US102	A2 20020104

AB A method is provided for **sterilizing** and/or deactivating  
adventitious agent(s) on and/or within a biol. material which comprises  
packaging the biol. material, altering the original atmospheric associated  
with the  
biol. material in order to reduce the level of oxygen to which the biol.  
material is exposed and subjecting the packaged biol. material with its  
altered atmospheric to irradiation  
IC ICM C12N005-08  
ICS A61L002-00  
INCL 435366000; 422023000  
CC 9-11 (Biochemical Methods)  
Section cross-reference(s): 63  
ST **sterilizing** deactivating adventitious agent assocd biol  
IT Hepatitis  
(A; method for **sterilizing** and/or deactivating adventitious  
agents associated with biol. materials)  
IT Hepatitis  
(B; method for **sterilizing** and/or deactivating adventitious  
agents associated with biol. materials)  
IT Hepatitis  
(C; method for **sterilizing** and/or deactivating adventitious  
agents associated with biol. materials)  
IT Infection  
Respiratory system, disease  
(SARS (severe acute respiratory syndrome); method for  
**sterilizing** and/or deactivating adventitious agents associated  
with biol. materials)

- IT Infection  
(hepatitis A; method for **sterilizing** and/or deactivating adventitious agents associated with biol. materials)
- IT Infection  
(hepatitis B; method for **sterilizing** and/or deactivating adventitious agents associated with biol. materials)
- IT Infection  
(hepatitis C; method for **sterilizing** and/or deactivating adventitious agents associated with biol. materials)
- IT Infection  
Skin, disease  
(herpes; method for **sterilizing** and/or deactivating adventitious agents associated with biol. materials)
- IT AIDS (disease)  
Animal tissue  
Bone  
Food analysis  
Ionizing radiation  
Poliomyelitis  
**Sterilization** and Disinfection  
Transplant and Transplantation  
UV radiation  
(method for **sterilizing** and/or deactivating adventitious agents associated with biol. materials)
- IT Carotenes, biological studies  
Retinoids  
Tocopherols  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(method for **sterilizing** and/or deactivating adventitious agents associated with biol. materials)
- IT Amino acids, biological studies  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(polycarboxylic; method for **sterilizing** and/or deactivating adventitious agents associated with biol. materials)
- IT 50-81-7, Ascorbic acid, biological studies 59-52-9, Dimercaprol  
67-43-6, Diethylenetriaminepentaacetic acid 77-92-9, Citric acid,  
biological studies 84-65-1, Anthraquinone 107-15-3, Ethylenediamine,  
biological studies 139-13-9 303-98-0, Coenzyme Q10 526-95-4,  
Gluconic acid 1135-24-6, Ferulic acid 6834-92-0 7235-40-7, Beta  
carotene 7487-88-9, Magnesium sulfate, biological studies 7722-84-1,  
Hydrogen peroxide, biological studies 7732-18-5, Water, biological  
studies 7775-14-6, Sodium hydrosulfite 7782-49-2, Selenium, biological  
studies 9001-62-1, Lipase  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(method for **sterilizing** and/or deactivating adventitious agents associated with biol. materials)
- IT 630-08-0, Carbon monoxide, biological studies 1333-74-0, Hydrogen,  
biological studies 7440-37-1, Argon, biological studies 7727-37-9,  
Nitrogen, biological studies 10198-40-0, Cobalt 60, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(method for **sterilizing** and/or deactivating adventitious agents associated with biol. materials)
- IT 7782-44-7, Oxygen, processes  
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)  
(reduce oxygen in contact with the biol. material; method for **sterilizing** and/or deactivating adventitious agents associated with biol. materials)

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L4 2 SEA FILE=REGISTRY ABB=ON (ARGON OR NITROGEN)/CN  
 L5 3 SEA FILE=REGISTRY ABB=ON (HYDROGEN OR HYDROGEN SULFIDE OR CARBON MONOXIDE)/CN  
 L6 26056 SEA FILE=HCAPLUS ABB=ON ?BIOLOGICS? OR ?BIOLOGICAL?(W) (?MATERIAL? OR ?TISSUE?)  
 L7 225 SEA FILE=HCAPLUS ABB=ON L6 AND (?STERILIZ? OR ?DEACTIVAT?)  
 L9 1 SEA FILE=HCAPLUS ABB=ON L7 AND ?ADVENTITIOUS?  
 L11 54 SEA FILE=HCAPLUS ABB=ON L7 AND (?INERT? OR ?REDUC? OR ?VACUUM?)  
 L12 10 SEA FILE=HCAPLUS ABB=ON L11 AND (L4 OR ?ARGON? OR ?NITROGEN?)  
 L13 5 SEA FILE=HCAPLUS ABB=ON L11 AND (L5 OR ?HYDROGEN? OR ?HYDROGEN ?(W)?SULFID? OR ?CARBON?(W)?MONOXID?)  
 L14 54 SEA FILE=HCAPLUS ABB=ON L11 OR L12 OR L13 OR L9  
 L15 27 SEA FILE=HCAPLUS ABB=ON L14 AND (?BONE? OR ?FOOD? OR ?TISSUE?)  
 L16 12 SEA FILE=HCAPLUS ABB=ON L15 AND (PRD<20010104 OR PD<20010104)

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L16 ANSWER 1 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:569669 HCAPLUS

DOCUMENT NUMBER: 135:157745

TITLE: Rapid cryobaric sterilization and vaccine preparation

INVENTOR(S): Laugharn, James A., Jr.; Bradley, David W.; Hess, Robert A.

PATENT ASSIGNEE(S): BBI Bioseq, Inc., USA

SOURCE: U.S., 11 pp., Cont.-in-part of U.S. Ser. No. 97,852, abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6270723	B1	20010807	US 1998-165829	19981002 <--
CA 2301067	AA	19991215	CA 1999-2301067	19990615 <--
WO 2000048641	A1	20000824	WO 1999-US13461	19990615 <--
W: AU, CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9946843	A1	20000904	AU 1999-46843	19990615 <--
US 2002182107	A1	20021205	US 2001-924266	20010807 <--
US 6696019	B2	20040224		
US 2004151620	A1	20040805	US 2004-770241	20040202 <--
PRIORITY APPLN. INFO.:			US 1998-97852	B2 19980615 <--
			US 1998-165829	A 19981002 <--
			WO 1999-US13461	W 19990615 <--
			US 2001-924266	A1 20010807

AB The invention is based on the discovery that biol. and non-biol. materials can be sterilized, decontaminated, or disinfected by repeatedly cycling between relatively high and low pressures. Pressure cycling can be carried out at low, ambient, or elevated temps. (e.g., from about -20° C. to about 95° C.). New methods based on this discovery can have applications in, for example, the preparation of vaccines, the sterilization of blood plasma or serum, the decontamination of military devices, and the disinfection of

medical equipment. The new methods can also be incorporated into production processes or research procedures. Samples of bovine serum were inoculated with 108 plaque forming units per mL of lambda bacteriophage. To the samples were added 0.1 mM iodine and pressurized to 30,000 psi for 10 min. and were held at a temperature of 25° C. throughout the experiment. After treatment, the reaction was quenched with a **reducing** agent and the serum was serially diluted, mixed with E. coli and plated on agar. After overnight incubation at 37° C., the plaques on the plates were counted to arrive at the relative **reduction** of viral titer due to pressurization and the combination of pressurization and chemical treatment. The samples had significantly greater **reduction** in viral titer as compared to the controls treated with either iodine or pressure, demonstrating a synergistic effect of pressure and iodine. Similar expts. were carried out with lower concns. of chemical additives and it was found that pressure allows equivalent viral inactivation with lower concns. of iodine or with shorter incubation time.

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 2 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:703030 HCAPLUS

DOCUMENT NUMBER: 134:9316

TITLE: Biochemical properties of the fibrinogen component of a fibrin glue before and after severe dry heat treatment

AUTHOR(S): Bolliger-Stucki, Bettina; Baillod, Peter; Mader, Werner; Furlan, Miha

CORPORATE SOURCE: Central Hematology Laboratory, Inselspital, University Hospital, Bern, Switz.

SOURCE: Journal of Biomedical Materials Research (2000), 53(5), 577-583

CODEN: JBMRBG; ISSN: 0021-9304

PUBLISHER: John Wiley & Sons, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Functional biochem. properties of 5 batches of the fibrinogen component of a fibrin glue produced by the ZLB Central Laboratory, Bern, each consisting of

4 different in-process samples (taken after the first and second precipitation step,

lyophilization, and dry-heat treatment) were studied in vitro. We focused our attention on the effect of the anti-viral treatment of the lyophilized product by dry heat for 1 h at 100°C. A slight **reduction** in maximal turbidity of all heat-treated samples was observed during the clotting assay compared to nontreated samples. Treatment with dry heat did not result in generation of fibrinogen fragments that might accelerate **tissue**-plasminogen-activator (t-PA)-enhanced plasminogen to plasmin conversion. The time course of fibrin crosslinking by factor XIII showed no differences between heated and unheated samples. This result indicates that exposure of the fibrinogen component to severe heat neither **reduced** activity of factor XIIIa nor affected the correct alignment of crosslinking sites in polymerized fibrin. Incubation of fibrinogen with thrombin, plasminogen, and t-PA resulted in a slightly enhanced degradation of fibrin derived from the heat-treated samples. The amount of residual moisture, determined to be within the range of 0.6-2.1%

before

heat treatment, did not influence clotting, crosslinking, and fibrinolysis parameters. In conclusion, the virus inactivation treatment by dry heat for 1 h at 100°C induces no significant alterations of the in vitro biochem. properties of the fibrinogen component of this fibrin glue.

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 3 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:732953 HCAPLUS

DOCUMENT NUMBER: 131:342069

TITLE: Disinfection of blood and biologicals with active albumin-iodine complex

INVENTOR(S): Shanbrom, Edward

PATENT ASSIGNEE(S): Shanbrom Technologies, LLC, USA

SOURCE: U.S., 8 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5985260	A	19991116	US 1995-529650	19950918 <--
PRIORITY APPLN. INFO.:			US 1995-529650	19950918 <--

AB A method of disinfecting blood, blood components, biologicals, such as plasma, serum, cell concs., clotting proteins, etc., as well as **tissues** and organs for transplant comprising preparing and immediately adding active albumin-iodine complex to the material to be disinfected and thereafter using the disinfected material is disclosed. A modified blood bag for use with active albumin-iodine complex had a small satellite bag to contain albumin or active albumin-iodine complex and may also comprise a flow-through cartridge for preparing the active albumin-iodine complex. Schematic drawings of an improved blood bag system and a device for using the present invention to disinfect aliquots of biologicals prior to lyophilization is depicted (no data).

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 4 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:669200 HCAPLUS

DOCUMENT NUMBER: 127:298717

TITLE: Nonaldehyde **sterilization** of biologic

**tissue** for use in implantable medical devices

AUTHOR(S): Moore, Mark A.; Mcilroy, Brian K.; Phillips, Richard E., Jr.

CORPORATE SOURCE: CarboMedics, Inc., Austin, TX, 78752-1793, USA

SOURCE: ASAIO Journal (1997), 43(1), 23-30

CODEN: AJOUET; ISSN: 1058-2916

PUBLISHER: Lippincott-Raven

DOCUMENT TYPE: Journal

LANGUAGE: English

AB **Biol. tissue** stabilized by dye-mediated photooxidn. has found application in implantable devices. The desire to avoid aldehydes in the processing of photooxidized **tissues** led to the development of a nonaldehyde, iodine based sterilant. The interaction of **tissue** with iodine was indicated by a change in **tissue** shrinkage temperature, dependent upon solution and incubation parameters. The amino acid tyrosine also was altered, presumably because of aromatic ring iodination. Transmission electron microscopic study indicated no change in the quarter staggered array structure of collagen under controlled iodine treatment conditions. The D10 values for iodine kill of several organisms, in the absence of **tissue**, were determined in 0.1% iodine (pH 6.5) at 37°C for Bacillus subtilis (12 min), Aspergillus niger,

Escherichia coli, Candida albicans, Staphylococcus aureus, and Pseudomonas aeruginosa (all <1 min). In a sep. experiment, samples of 0.1% iodine (pH 6.5), containing photooxidized pericardial **tissue** were inoculated with 1.6 + 107 Bacillus subtilis, 4.6 + 106 Pseudomonas aeruginosa, or 7.2 + 106 Staphylococcus aureus and incubated at 37°C. No survivors were detected on the **tissue** samples after exposure of 48 h. Photooxidized pericardial **tissue** samples inoculated with either 3.2 + 105 porcine parvovirus or 1 + 109 infectious bovine rhinotracheitis were exposed to 0.1% iodine (pH 6.5) at 36°C for 12 h. No viral particles were detected after exposure, yielding min. viral log **reduction** factors of 3.0 and 6.5, resp. The results presented indicate the potential for a nonaldehyde, iodine based solution to **sterilize** implantable devices containing **biol. tissue**.

REFERENCE COUNT: 63 THERE ARE 63 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 5 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:464543 HCAPLUS

DOCUMENT NUMBER: 125:96050

TITLE: Process for the separation of lipids from **biological materials**

INVENTOR(S): Hiltunen, Raimo Vilho Kari; Vuorela, Heikki Juhani

PATENT ASSIGNEE(S): Helsinki University Licensing Ltd. Oy, Finland

SOURCE: PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9616712	A1	19960606	WO 1995-FI645	19951122 <--
W:	AL, AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK			
RW:	KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
US 5759549	A	19980602	US 1994-345039	19941125 <--
AU 9539303	A1	19960619	AU 1995-39303	19951122 <--
EP 793523	A1	19970910	EP 1995-937097	19951122 <--
EP 793523	B1	19980923		
R:	AT, BE, CH, DE, DK, ES, FR, GB, LI, NL, PT, SE			
AT 171384	E	19981015	AT 1995-937097	19951122 <--
FI 9702161	A	19970723	FI 1997-2161	19970521 <--
FI 104619	B1	20000315		

PRIORITY APPLN. INFO.: US 1994-345039 A 19941125 <--  
WO 1995-FI645 W 19951122 <--

AB Materials and methods are presented for the isolation of lipids from a mixture of lipids in **biol. materials** using a supercrit. fluid extraction process. Lipids are isolated by methods according to the invention in an amount approx. equal to the amount of the specified material in the mixture prior to extraction. Thus, from heat **sterilized** and freeze-dried **tissue** such as brain or **bone** marrow from pig, reindeer, cow, or other similar animals, lipids first are extracted with a mixture of ethanol-diethylether (4:1, volume/volume). The solvent is then evaporated and the lipids are dissolved in acetone. Lipids are then adsorbed

from the acetone solution onto finely divided silica, and the acetone filtered off. The ratio of lipids to adsorbent material may vary within wide limits, from approx. 15% to approx. 75% by weight. A suitable amount in the case of silica of the particle size and diameter employed is approx. 30% by weight. The obtained adsorbent material with adsorbed neurolipids is then charged into an extraction vessel and supercrit. CO<sub>2</sub> is then fed into the extraction vessel from below. In the present example, the extraction vessel containing the adsorbent material is operated at a temperature of 65-75 °C and a pressure of about 600 bars, under which conditions the neutral lipids were removed almost quant. from the adsorbent material. After passing through the extraction vessel, the gas passes to a separation vessel where its pressure is reduced to atmospheric pressure. Under such conditions, the gas volatilizes and the neutral lipids are separated. The resulting lipids are then removed from the separation vessel. The adsorbent material with adsorbed phospholipids and glycolipids in pure form may be recovered through a valve at the bottom of the extraction chamber. Lipids thus obtained may be suitable for use as pharmaceuticals or nutritional additives.

L16 ANSWER 6 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1988:210253 HCAPLUS

DOCUMENT NUMBER: 108:210253

TITLE: Selective incorporation of a polymer into implantable biological tissue to inhibit calcification

INVENTOR(S): Nashef, Aws S.

PATENT ASSIGNEE(S): Baxter Travenol Laboratories, Inc., USA

SOURCE: U.S., 7 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4729139	A	19880308	US 1985-795124	19851105 <--
PRIORITY APPLN. INFO.:			US 1985-795124	19851105 <--

OTHER SOURCE(S): MARPAT 108:210253

AB Calcification of implanted animal tissue (e.g., porcine heart valves) is reduced by a preimplant tissue treatment consisting of (A) fixing the tissue, (B) contacting the fixed tissue with a 1st solution of  $\geq 1$  monomers under conditions sufficient to form a covalent bond between the monomer and fixed tissue, (C) contacting the monomer-bound tissue with the polymerization initiator, and (D) contacting the tissue with a 2nd solution containing  $\geq 1$  monomers or oligomers under polymerization conditions in the presence a polymerization-inhibiting free-radical scavenger such that the 2nd monomer(s) or oligomer(s) polymerized with the covalently-bound 1st monomer(s) and the resulting polymers concentrated in the interstices of the tissue. Extracted bovine pericardial tissue was thoroughly rinsed and shipped in an isotonic solution containing 0.54 g/L of the Na N-2-hydroxyethylpiperazine-N'-2-ethanesulfonate (I) and 0.885 weight% NaCl at pH 7.3 at 4°. The tissue was fixed with 0.625 weight% glutaraldehyde in an isotonic solution containing 5.39 g/L of I, 0.440 weight% NaCl,

and 2.6 g/L of MgCl<sub>2</sub>·6H<sub>2</sub>O at room temperature A 5 g portion of the extracted and fixed **tissue** was immersed in 40 mL solution containing 2.5 g ethylenediamine at pH 4.75. After 30 min, 2 g of water-soluble 1-ethyl-3-(3-dimethylaminopropyl) carbodiimide-HCl were added stepwise while the pH was maintained at 4.75 for a 30 min incubation period at room temperature Next, the **tissue** was rinsed thoroughly with I-buffered saline at pH 7.4, and transferred into an aqueous solution containing 0.2M acrylic acid at pH 4.75 for 30 min. The **tissue** was thoroughly rinsed with I-buffered saline to remove any noncoupled acrylic acid from the **tissue**, the acrylic acid-coupled **tissue** was then suspended in 40 mL H<sub>2</sub>O and bubbled with N for 30 min before replacing with a 40 mL solution of 2% (NH<sub>4</sub>)<sub>2</sub>S<sub>2</sub>O<sub>8</sub> containing 0.6% (volume/vol) N,N,N',N'-tetramethylethylenediamine. After 30 min, the free radical initiation step was completed, and the **tissue** was transferred to 40 mL of a 1% acrylamide solution containing 0.25% N,N'-methylbisacrylamide and 0.25 weight% ferrous ammonium sulfate after a 60 min polymerization period, the **tissue** was rinsed with H<sub>2</sub>O and **sterilized** in a solution containing 4% HCHO. The **tissue** was then rinsed again in sterile saline and implanted s.c. in growing rabbits. The **tissue** was retrieved at 1-wk intervals for 6 wk, during which period no calcification was observed, compared with significant calcification for a control **tissue** sample.

L16 ANSWER 7 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1984:537076 HCAPLUS  
 DOCUMENT NUMBER: 101:137076  
 TITLE: Chemical **sterilization** of implantable **biological tissue**  
 INVENTOR(S): Nashef, Aws S.; Lowery, Guy  
 PATENT ASSIGNEE(S): American Hospital Supply Corp., USA  
 SOURCE: PCT Int. Appl., 24 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 8401894	A1	19840524	WO 1983-US1702	19831103 <--
W: JP				
RW: CH, DE, FR, GB				
EP 124596	A1	19841114	EP 1983-903751	19831103 <--
R: CH, DE, FR, GB, LI				
JP 60500014	T2	19850110	JP 1983-503701	19831103 <--
CA 1211716	A1	19860923	CA 1983-440961	19831110 <--
PRIORITY APPLN. INFO.:			US 1982-441024	A 19821112 <--
			WO 1983-US1702	W 19831103 <--

AB **Biol. tissues** used for prosthetics are treated prior to implantation with **sterilizing** solns. containing HCHO [50-00-0], glutaraldehyde [111-30-8], alcs., or surfactants to destroy microorganisms. Extracted porcine aortic heart valve **tissue** was rinsed and shipped in an isotonic solution of 0.02 M phosphate-buffered saline at pH 7.3 and at 4° in 0.625% glutaraldehyde in an isotonic solution at pH 7.4 and at room temperature A suspension of Micrococcus cinereus in a phosphate-buffered solution having a spore count of 105-106 spores/mL was



injected into various portions of a bioprosthetic heart valve prepared from the extracted **tissue** to give a final inoculum level of 7.1 + 103 spores/valve. The valve **tissue** was further exposed to 100 mL 0.02M-phosphate buffered solution containing 4% HCHO and 20% EtOH [64-17-5] for 48 h. At the end of 48 h, no **reduction** in spore count was evident in any of the 5 samples of the valve **tissue** tested.

L16 ANSWER 8 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1984:486924 HCAPLUS  
DOCUMENT NUMBER: 101:86924  
TITLE: Surfactant treatment of implantable **biological tissue** to inhibit calcification  
INVENTOR(S): Nashef, Aws S.; Ahmed, Ahmed I.  
PATENT ASSIGNEE(S): American Hospital Supply Corp., USA  
SOURCE: PCT Int. Appl., 23 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 8401879	A1	19840524	WO 1983-US1703	19831103 <--
W: JP				
RW: CH, DE, FR, GB				
EP 126743	A1	19841205	EP 1983-903752	19831103 <--
EP 126743	B1	19890412		
R: CH, DE, FR, GB, LI				
JP 59502104	T2	19841220	JP 1983-503632	19831103 <--
JP 04019201	B4	19920330		
CA 1249226	A1	19890124	CA 1983-440952	19831110 <--
US 5215541	A	19930601	US 1985-713204	19850318 <--
PRIORITY APPLN. INFO.:			US 1982-441023	A 19821112 <--
			WO 1983-US1703	W 19831103 <--

AB A method is described for **reducing** calcification of glutaraldehyde- or glutaraldehyde- and HCHO-preserved implanted animal **tissues** (e.g., tendons, dura matter, heart valves, ligaments, and pericardium) and for maintaining the proper hemodynamic properties of heart valve leaflets which involves pretreatment (storage, fixation, **sterilization**) of **tissues** prior to implantation with a surfactant (.apprx.0.1-10% of anionic, cationic, or nonionic surfactants and their salts) at 20-40°, pH 7.0-7.6, for 2-30 h. Thus, porcine aortic heart valve **tissue** shipped in isotonic solution (pH 7.3, 4°) was fixed in 0.625% glutaraldehyde (pH 7.4, room temperature), and **sterilized** in 0.02 M phosphate-buffered saline containing .apprx.40% Tween-80, pH 7.3 at 35°. Following s.c. implantation in rabbits, the valve was removed and the extent of calcification was found to be significantly **reduced** compared to valves not treated with Tween. The presence of EtOH in the surfactant solution had no effect on the results.

L16 ANSWER 9 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1981:556564 HCAPLUS  
DOCUMENT NUMBER: 95:156564  
TITLE: Active biological factors and their use  
INVENTOR(S): Theurer, Karl  
PATENT ASSIGNEE(S): Fed. Rep. Ger.  
SOURCE: Eur. Pat. Appl., 40 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent

LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 29893	A2	19810610	EP 1980-106066	19801007 <--
EP 29893	A3	19820421		
EP 29893	B1	19870520		
R: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
DE 2944278	A1	19810507	DE 1979-2944278	19791102 <--
DE 2944278	C2	19830721		
DE 2944277	A1	19810514	DE 1979-2944277	19791102 <--
EP 153995	A2	19850911	EP 1984-112944	19801007 <--
EP 153995	A3	19851227		
EP 153995	B1	19890531		
R: AT, BE, CH, FR, GB, IT, LI, LU, NL, SE				
AT 27280	E	19870615	AT 1980-106066	19801007 <--
EP 49341	A2	19820414	EP 1981-106054	19810801 <--
EP 49341	A3	19820818		
EP 49341	B1	19860219		
R: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
AT 18071	E	19860315	AT 1981-106054	19810801 <--
US 4621055	A	19861104	US 1983-482257	19830405 <--

PRIORITY APPLN. INFO.:

DE 1979-2944277	A	19791102 <--
DE 1979-2944278	A	19791102 <--
US 1980-202799	A1	19800103 <--
EP 1980-106066	P	19801007 <--
JP 1980-152382	A	19801031 <--
EP 1981-105731	A	19810721 <--
EP 1981-106054	A	19810801 <--
US 1982-415989	A2	19820908 <--

AB Sterile biol. active materials (free of particulates) for stimulating or inhibiting the growth, metabolism, and biosynthesis of eucaryotic or precaryotic cells and **tissues** are obtained from homogenates of organ, microorganism, or plant cells or from blood, spinal fluid, amniotic fluid, exudates, transudates, **tissue** press juices, or urine by affinity separation (chromatog. or electrophoresis) with  $\geq 1$  nucleic acid, protein, or peptide bound to a carrier. Thus, powdered liver was **sterilized** with vapors of H2SO4 in **vacuum** apparatus, homogenized with pH 7.4 phosphate-buffered isotonic saline at 6-10°, and centrifuged 10 min at 200 g. The supernatant (cytoplasmic components) was treated with lipase at pH 9.2 followed by amyloglucosidase at pH 4.8, and then dialyzed or ultrafiltered to sep. components with mol. weight <600. The DNA fraction from a single or a mixture of tumors was coupled to cellulose in pH 7.4 Tris-HCl buffer containing EDTA, and the tumor-inhibiting factors of liver proteins were obtained by chromatog. on the DNA-cellulose column, eluting with EDTA-containing phosphate with the application of a 50 kHz, 1000 V, 5 mA elec. field.

L16 ANSWER 10 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1971:459464 HCAPLUS  
DOCUMENT NUMBER: 75:59464  
TITLE: Effects of **sterilizing** doses of radiation on **biological tissues**  
AUTHOR(S): Little, K.  
CORPORATE SOURCE: U. K. At. Energy Auth., Wantage, UK  
SOURCE: Panel Radiat. Steril. Biol. Tissues Transplant. (1970), 37-41  
DOCUMENT TYPE: Conference

LANGUAGE: English

AB At doses in the 1.5-5 Mrad range, all cells are killed so that organ grafts are not under consideration, but only **tissues** that when implanted will remain **inert** or be gradually replaced by cells from the host (e.g. nerves, **bone**, heart valves). The osteogenic factor, which is destroyed by radiation, is needed for **bone** formation and certain **tissue** breakdown products are needed for production of granulation **tissue** or vascular proliferation, but not for nerve regeneration. Radiation affects the production and type of these chems. The effects of radiation are 2-fold: under some conditions intercellular materials are rendered more **inert**, while they may also be degraded. The radiation initiates chain reactions which continue for some time afterwards.

L16 ANSWER 11 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1963:481092 HCAPLUS

DOCUMENT NUMBER: 59:81092

ORIGINAL REFERENCE NO.: 59:15025f-h,15026a-e

TITLE: Distribution of radioisotopes in principal components of freshwater reservoirs

AUTHOR(S): Timofeeva-Resovskaya, E. A.

SOURCE: Tr. Inst. Biol., Akad. Nauk SSSR, Ural'sk. Filial (1963), (30), 3-77

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB The following topics were studied: (1) distribution of radioisotopes introduced into the water according to the principal components of the water reservoir, viz., water, soil, **biol. material**; (2) concentration and accumulation of various isotopes by various fresh-water plants and animals; (3) **reduction** of the radioactivity of water containing weak concns. of radioisotopes when passing through water reservoirs with slow through-flow. The sorption by soil, sand, and suspended matter was studied in a 20 ml. column filled with soil etc. with a filtration rate of 1 ml./min. The best sorption and lowest desorption was observed with Co, Zn, Y, Cd, and Cs; low sorption and high desorption was shown by S, Fe, Ru, and Ce were present in at least 2 forms, one of which was well sorbed, the other passed through the filter. The mobility of the element in the soil was characterized by the chemical properties of the element, its concentration in the solution, and the phys.-chemical state in which the radioisotope is found in the system soil-solution. The **deactivation** properties of wood ashes, coal slags, sand, meadow soil, and pond mud were studied on lake water containing various isotopes in the concentration of 10-5 c./l.

Nearly complete **deactivation** was obtained with Sr, Ru, and Ce in the case of wood ashes, and with Cs with soil and mud. The distribution of radioisotopes according to components was studied on water, soil, and **biol. material** in the ratio 850:150:1. Samples were taken at various intervals (2-32 days). Water contained usually a quarter of the total activity, the **biol. material** 28%, the soil .apprx.50%. The accumulation coeffs. in various fresh-water organisms stabilized in 10-15 days after the beginning of the expts. In lower plants the stabilization was quicker, requiring hrs. to days. In animals the coeffs. were considerably lower than in plants. The accumulation coeffs. of chemical analogues were studied on Zn65, Cd115, and Hg203. The lowest accumulation coeffs. were observed with Cd. Animals and plants had accumulation coeffs. a factor of 2 higher for Rb86 than for Cs137. The coefficient of Cs was 12 times higher in sand than that of Rb. The effect of complexon E.D.T.A. on the accumulation coeffs. was studied. Other complex-forming substances, viz.,  $\beta$ -alanin-N,N-diacetic acid,

leucin-N,N-diacetic acid, and Na-rhodisonate were also studied and found to be less effective than the E.D.T.A. in the **reduction** of the accumulation coefficient, which appears to depend to a high degree on the state of the element in the solution (cation, anion, mol., or complex). Special accumulators were found by studying 20 animals and 32 plants and plotting the variation series of the accumulation coeffs. for 19 radioisotopes. Great importance of algae as concentrators of microelements in the biogeochem. processes in water reservoirs is shown. expts. were made with periphyton, i.e., the subaqueous growth on reservoir walls, and the results indicated that the accumulation coeffs. in periphyton are to be very high, and that the **deactivation** of slightly contaminated water can be carried out by using the increased periphyton growth in systems such as pipelines. Expts. were made with ponds and soil filters. The ponds had a capacity of 30 m.<sup>3</sup>, the filters 100 l. In one experiment the filter was located in front of the pond, in the other behind the pond. An amount of 250-350 l. water with a concentration of  $2.5 \times 10^{-3}$  c./l. was supplied per day. The bottom of the ponds was covered with lake sand and intermediate layers of soil. Higher water plants and shore plants were cultivated. The ponds operated for 2 years with good results. Expts. were also made with a series of containers with 1/30 of the total capacity added per day in the form of H<sub>2</sub>O containing various isotopes ( $10^{-5}$  curie/l.). Sr and Ru passed through 10 containers and were present in the amount of 1.5-2% at the exit. S was detected in the amount of 10-20% at the exit. Fe, Zn, and Zr reached the 10th, Co, Cs, and Ce the 9th, Y the 6th or 7th container. A mixture of U fission products attained the 9th or 10th container. 187 references.

L16 ANSWER 12 OF 12 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1952:68581 HCAPLUS

DOCUMENT NUMBER: 46:68581

ORIGINAL REFERENCE NO.: 46:11471e-g

TITLE: Biochemical prevention of flavor and chemical changes in foods and tissues  
**sterilized** by ionizing radiations

AUTHOR(S): Proctor, Bernard E.; Goldblith, Samuel A.; Bates, Charles J.; Hammerle, Olivia A.

CORPORATE SOURCE: Massachusetts Inst. Technol., Cambridge  
SOURCE: Food Technology (Chicago, IL, United States) (1952), 6, 237-43

CODEN: FOTEAQ; ISSN: 0015-6639

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB cf. C.A. 45, 10411g. When ionizing radiations are used to **sterilize foods and tissues**, side-effects are produced that cause undesirable color, flavor, and texture changes. The undesirable effects appeared to be ascribable to free radicals produced in the reaction of ionizing radiations with water. The effects could be **reduced** or prevented by use of free-radical acceptors which protected the solute (flavor mol. or nutrient) by competing for the free radicals. The principle was applied successfully to prevent hemolysis in suspensions of red blood cell when they were irradiated. Sodium D-isoascorbate protected pepsin in an acetate buffer. Niacin was an even better protector. Na<sub>2</sub>SO<sub>3</sub> also functioned as a free-radical acceptor.

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L4 2 SEA FILE=REGISTRY ABB=ON (ARGON OR NITROGEN)/CN  
 L5 3 SEA FILE=REGISTRY ABB=ON (HYDROGEN OR HYDROGEN SULFIDE OR CARBON MONOXIDE)/CN  
 L6 26056 SEA FILE=HCAPLUS ABB=ON ?BIOLOGICS? OR ?BIOLOGICAL?(W) (?MATERIAL? OR ?TISSUE?)  
 L7 225 SEA FILE=HCAPLUS ABB=ON L6 AND (?STERILIZ? OR ?DEACTIVAT?)  
 L9 1 SEA FILE=HCAPLUS ABB=ON L7 AND ?ADVENTITIOUS?  
 L11 54 SEA FILE=HCAPLUS ABB=ON L7 AND (?INERT? OR ?REDUC? OR ?VACUUM?)  
 L12 10 SEA FILE=HCAPLUS ABB=ON L11 AND (L4 OR ?ARGON? OR ?NITROGEN?)  
 L13 5 SEA FILE=HCAPLUS ABB=ON L11 AND (L5 OR ?HYDROGEN? OR ?HYDROGEN ?(W)?SULFID? OR ?CARBON?(W)?MONOXID?)  
 L14 54 SEA FILE=HCAPLUS ABB=ON L11 OR L12 OR L13 OR L9  
 L15 27 SEA FILE=HCAPLUS ABB=ON L14 AND (?BONE? OR ?FOOD? OR ?TISSUE?)  
 L17 51 SEA L15  
 L18 48 DUP REMOV L17 (3 DUPLICATES REMOVED)  
 L19 16 SEA L18 AND ?BONE?

=&gt; d ibib abs 119 1-16

L19 ANSWER 1 OF 16 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 2006-313998 [33] WPIDS  
 DOC. NO. CPI: C2006-103336  
 TITLE: Method for separating sulfated glycosoamineglycanes from **biological tissue**.  
 DERWENT CLASS: B04 D16  
 INVENTOR(S): LARIONOV, E V; PANASYUK, A F  
 PATENT ASSIGNEE(S): (LARI-I) LARIONOV E V; (PANA-I) PANASYUK A F  
 COUNTRY COUNT: 1  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
RU 2273486	C1	20060410	(200633)*		

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
RU 2273486	C1	RU 2004-125078	20040817

PRIORITY APPLN. INFO: RU 2004-125078 20040817

AN 2006-313998 [33] WPIDS

AB RU 2273486 C UPAB: 20060523

NOVELTY - Method involves comminuting soft **tissues** to homogeneous state and hard **tissues** to small pieces, washing them with 0.1 N phosphate buffer. The **tissue** is digested in activated 0.125-0.325% papain at 60 deg. C during 24 h, cooled during 10 h at 4 deg. C, filtered and the digested **tissue** is poured into chromatography column where **bone tissue** collagen is used as solid carrier having particle sizes from 0.1 to 0.5 cm<sup>3</sup>, incubated during 10 to 24 h, washing in 0.05-0.2 N hydrochloric acid and eluted with 0.5-1.5N sodium chloride, dialyzed against saturated sodium chloride, precipitated in ethanol, centrifuged during 15 min at 1500 rpm at 4 deg. C. The precipitate is washed with ethanol, dried, packed and **sterilized** using radiation method.  
 USE - Medicine.

ADVANTAGE - Increased end product output; reduced antigenic activity; high biocompatibility.  
Dwg.0/0

L19 ANSWER 2 OF 16 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN  
ACCESSION NUMBER: 2005-506771 [51] WPIDS  
CROSS REFERENCE: 2005-495863 [50]; 2005-540032 [55]  
DOC. NO. CPI: C2005-153864  
TITLE: Oxidative **reductive** potential water solution  
useful for preventing or treating upper respiratory  
condition such as chronic sinusitis, asthma and infection  
caused by viruses, bacteria and fungi, has stability for  
predetermined period.  
DERWENT CLASS: B04 D22  
INVENTOR(S): ALIMI, H  
PATENT ASSIGNEE(S): (OCUL-N) OCULUS INNOVATIVE SCI INC  
COUNTRY COUNT: 108  
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2005065383	A2	20050721	(200551)*	EN	57
RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
US 2005196462	A1	20050908	(200559)		

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2005065383	A2	WO 2004-US43961	20041230
US 2005196462	A1 Provisional	US 2003-533583P	20031230
	CIP of	US 2004-862092	20040604
		US 2004-916278	20040811

PRIORITY APPLN. INFO: US 2004-916566 20040811; US  
2003-533583P 20031230; US  
2004-862092 20040604; US  
2004-916278 20040811

AN 2005-506771 [51] WPIDS  
CR 2005-495863 [50]; 2005-540032 [55]  
AB WO2005065383 A UPAB: 20050915

NOVELTY - An oxidative **reductive** potential (ORP) water solution,  
has stability for at least twenty-four hours.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the  
following:

- (1) a sealed container containing the ORP water solution;
- (2) a process for producing ORP water solution which involves  
providing at least one electrolysis cell, comprising a salt solution  
chamber located between the anode and cathode chambers, flowing water  
through the anode and cathode chambers, flowing a salt solution through  
the salt solution chamber, simultaneously passing electrical current to  
the anode electrode and cathode electrode and collecting the ORP water

solution produced by the electrolysis cell. The anode chamber is separated from the salt solution chamber by an anode electrode and a first membrane, and the cathode chamber is separated from the salt solution chamber by a cathode electrode and a second membrane. The solution comprises anode water and cathode water;

(3) a method of preventing or treating a condition in a patient, by administering ORP water solution;

(4) a method of disinfecting a surface, which involves contacting the surface with ORP water solution;

(5) a gel for topical administration comprising ORP water solution, a thickening agent (1-20 mg/250 ml), and a neutralizing agent (3-35 volume%) based on volume of the ORP water solution and the formulation is stable for at least two months and has a pH of 6.4-7.8;

(6) a pharmaceutical dosage form comprising the topical formulation and a sealed container; and

(7) a method for promoting wound healing in a patient by applying the above formulation.

ACTIVITY - Antiinflammatory; Antiasthmatic; Antimicrobial; Virucide; Anti-HIV; Cardiant; Neuroprotective; Antibacterial; Tuberculostatic; Antifungal; Antiallergic; Vulnerary. Six patients having major diabetic foot ulcers in the granulating phase were treated with the gel formulation. Each wound was cleaned and de-bribe before treatment. The gel was gently applied to cover the entire area of the wound and up to 1 cm outside the wound on the surrounding skin. The treatment was continued for an average of sixty days. For each of the patients, gross red granulating tissue and enhancement of healthy skin was achieved within 1-2 weeks. The gel formulation was effective in treating major diabetic foot ulcers.

MECHANISM OF ACTION - None given.

USE - For preventing or treating upper respiratory condition affecting upper respiratory airway tissues selected from nasal tissue, sinus tissue, and lung tissue such as chronic sinusitis, asthma and infection caused by viruses e.g. adenoviruses, HIV, rhino viruses, and flu viruses, viral myocarditis, multiple sclerosis, and AIDS, bacteria e.g. Escherichia coli, Pseudomonas aeruginosa, Staphylococcus aureus and Mycobacterium tuberculosis, and fungi e.g. Candida albicans, Bacillus anthracis and Bacillus subtilis, an inflammatory condition and an allergic reaction, and for wound healing (claimed).

ADVANTAGE - The solution is stable for at least 24 hours. The ORP water is effectively utilized as an adjuvant treatment for acute pharyngitis and tonsillitis. The water reduces the use of antibiotics and symptomatology of the patient and accelerates the patient's recovery. The adjuvant use of the ORP water solution with antibiotics also shortens the period of clinical response and decreases the incidence of recurrence. The ORP water is also used for controlling allergens present in the environment and for sterilizing medical or dental equipments.

Dwg.0/3

L19 ANSWER 3 OF 16 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 2005-435168 [44] WPIDS  
 DOC. NO. NON-CPI: N2005-353218  
 DOC. NO. CPI: C2005-133456  
 TITLE: Method for shunting toxic substances present in sinus system of an individual suffering from a condition related to the retention/accumulation of toxic substances in brain tissue or cerebrospinal fluid space involves use of shunt system.  
 DERWENT CLASS: A96 B07 D22 E11 P34

INVENTOR(S): BORGESSEN, S E  
 PATENT ASSIGNEE(S): (SINU-N) SINU SHUNT AS  
 COUNTRY COUNT: 108  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2005051474	A2	20050609	(200544)*	EN	48
RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2005051474	A2	WO 2004-DK827	20041126

PRIORITY APPLN. INFO: US 2003-524887P 20031126; DK  
 2003-1749 20031126

AN 2005-435168 [44] WPIDS

AB WO2005051474 A UPAB: 20060112

NOVELTY - A method for shunting toxic substances, present in sinus system of an individual suffering from or at risk of developing, a condition related to the retention/accumulation of toxic substances in brain **tissue** or cerebrospinal fluid (CSF) space, inserting into brain ventricle of the individual the brain ventricle catheter of a shunt system; and inserting into the sinus system of the individual the sinus catheter of the shunt system.

DETAILED DESCRIPTION - A method for shunting toxic substances, present in a brain ventricle, to the sinus system of an individual suffering from, or at risk of developing, a condition related to the retention and/or accumulation of toxic substances in brain **tissue** and/or the cerebrospinal fluid (CSF) space, involves providing a shunt system for shunting cerebrospinal fluids comprising toxic substances, such as amyloid proteins, from a brain ventricle to the sinus system of an individual; inserting into a brain ventricle of the individual the brain ventricle catheter of the shunt system, which is capable of connecting to the shunt body at its first location; inserting into the sinus system of the individual the sinus catheter of the shunt system which is capable of connecting to the shunt body at its second location; and shunting toxic substances (preferably amyloid proteins), present in a brain ventricle to the sinus system of the individual suffering from, or at risk of developing, a condition related to the retention and/or accumulation of toxic substances in brain **tissue** and/or the CSF space. The shunt system comprises a shunt body allowing fluid communication between a brain ventricle and a part of the sinus system of the individual comprises a flow restricting component which maintains a passive and essentially constant resistance to flow of cerebrospinal fluids through the shunt body; a brain ventricle catheter capable of connecting to the shunt body at its first location, where the brain ventricle catheter is capable of draining cerebrospinal fluids from a brain ventricle to the shunt body; and a sinus catheter capable of connecting to the shunt body at its second location. The sinus catheter is capable of draining to the sinus system of



the individual cerebrospinal fluids having been drained from a brain ventricle and passed through the flow restricting component of the shunt body to the sinus catheter, where optionally either all or part of (i) the internal or external surface of the shunt body, (ii) the internal or external surface of the brain ventricle catheter, or (iii) the internal or external surface of the sinus catheter, comprise a biocompatible/hemocompatible material comprising an inert surface preventing biological material from maintaining contact with the inert surface, and/or comprising a hemocompatible surface coated with several of charged species capable of increasing the hemocompatibility of the surface.

ACTIVITY - Nootropic; Neuroprotective; Cerebroprotective; Hemostatic; Anticonvulsant; Antiparkinsonian; Muscular-Gen.; Antiinflammatory; CNS-Gen.; Cytostatic.

MECHANISM OF ACTION - None given.

USE - For shunting toxic substances (e.g. tau, beta-2 microglobulin or A-beta-42), present in a brain ventricle, to the sinus system of an individual suffering from, or at risk of developing, and a condition related to the retention and/or accumulation of toxic substances in brain tissue and/or the cerebrospinal fluid (CSF) space e.g. Alzheimer's disease, Down's syndrome, hereditary cerebral hemorrhage with amyloidosis of the Dutch-Type (HCHWA-D) or the like, epilepsy, Parkinson's disease, polyneuropathy, multiple sclerosis, amyotrophic lateral sclerosis (ALS), myasthenia gravis, muscular dystrophy, dystrophy myotonic or another myotonic syndrome, polymyositis, dermatomyositis, a brain tumor or Guillain-Barre-syndrome (all claimed).

ADVANTAGE - The method does not employ any pressure regulation device; has maintenance of a passive and essentially constant resistance to the flow of CSF comprising toxic substances; provides controlled removal of CSF from the CSF space in a manner which effectively ensure that the amount of toxic substances is reduced without excessive removal of CSF.

Dwg.0/9

L19 ANSWER 4 OF 16 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN  
ACCESSION NUMBER: 2005-273256 [28] WPIDS  
DOC. NO. CPI: C2005-085517  
TITLE: Improving biomechanical performance of biological material useful for treating diseases/malfunction of tissues involves treating the biological material with high affinity free radical scavenging substance, and exposing it to radiation.  
DERWENT CLASS: B04  
INVENTOR(S): AKKUS, O  
PATENT ASSIGNEE(S): (UYTO-N) UNIV TOLEDO  
COUNTRY COUNT: 108  
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG																	
WO 2005030137	A2	20050407	(200528)*	EN	61																	
RW:	AT	BE	BG	BW	CH	CY	CZ	DE	DK	EA	EE	ES	FI	FR	GB	GH	GM	GR	HU	IE	IT	KE
	LS	LU	MC	MW	MZ	NA	NL	OA	PL	PT	RO	SD	SE	SI	SK	SL	SZ	TR	TZ	UG	ZM	ZW
W:	AE	AG	AL	AM	AT	AU	AZ	BA	BB	BG	BR	BW	BY	BZ	CA	CH	CN	CO	CR	CU	CZ	DE
	DK	DM	DZ	EC	EE	EG	ES	FI	GB	GD	GE	GH	GM	HR	HU	ID	IL	IN	IS	JP	KE	KG
	KP	KR	KZ	LC	LK	LR	LS	LT	LU	LV	MA	MD	MG	MK	MN	MW	MX	MZ	NA	NI	NO	NZ
	OM	PG	PH	PL	PT	RO	RU	SC	SD	SE	SG	SK	SL	SY	TJ	TM	TN	TR	TT	TZ	UA	UG
	US	UZ	VC	VN	YU	ZA	ZM	ZW														

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2005030137	A2	WO 2004-US31429	20040924

PRIORITY APPLN. INFO: US 2003-505635P 20030924

AN 2005-273256 [28] WPIDS

AB WO2005030137 A UPAB: 20050504

NOVELTY - Improving biomechanical performance and minimizing damage of at least one irradiated **biological material** (M1) involves optionally treating (M1) with at least one nucleic acid targeted radiosensitizer; treating (M1) with a material with high affinity free radical scavenging substance (S1) and exposing it to radiation. (M1) Has a molecular or supramolecular level of porosity for allowing penetration of molecules of (S1).

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a composition comprising at least one irradiated, **sterilized** and biomechanically strengthened **biological material** (M1) and optionally at least one aqueous solvent.

ACTIVITY - Osteopathic; Muscular-Gen.

MECHANISM OF ACTION - None given.

USE - For improving the biomechanical performance of at least one irradiated **biological material** e.g. **bone tissue**, cartilage **tissue**, collagen **tissue**, ligament and/or tendon **tissue** and for minimizing damage to at least one **biological material** with recovery in the mechanical strength and in the preparation of composition useful in the prophylaxis and treatment of a condition or disease or malfunction of at least one **tissue** (claimed); also for **bone banking** and **bone graft technology**.

ADVANTAGE - The method provides **sterilized biological material** with improved biomechanical performance and improved mechanical integrity; it minimizes and/or reverses the extent of damage to the **biological material** e.g. collagen with the associated recovery of the mechanical strength of the material; and improves the functional life-time of the allograft component following transplantation, which provides additional valuable time for the host structures to recover their strength. The **biological material** have retained improved biomechanical values compared with a **biological material** exposed to the radiation in the absence of the scavenging agent. The method improves the current practice of gamma radiation **sterilization** of **bone grafts**, including improving mechanical strength of the graft. The use of thiourea treatment yields stronger and more durable grafts.

Dwg.0/16

L19 ANSWER 5 OF 16 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2004-774772 [76] WPIDS

DOC. NO. NON-CPI: N2004-610371

DOC. NO. CPI: C2004-271203

TITLE: Measuring device for measuring amount of energy absorbed by product undergoing **sterilization** with radiation, comprises material(s) that absorbs radiation, and cooling agent(s) for maintaining material in predetermined temperature.

DERWENT CLASS: B04 D16 D22 S03

INVENTOR(S): CALVERT, G; CLARK, D; KENT, R; MACPHEE, M; MCBAIN, A;  
PEARCE, B; MACPHEE, M J; MCBAIN, A L; PEARCE, B O

PATENT ASSIGNEE(S): (CALV-I) CALVERT G; (CLAR-I) CLARK D; (KENT-I) KENT R;  
 (MACP-I) MACPHEE M J; (MCBA-I) MCBAIN A L; (PEAR-I)  
 PEARCE B O; (CLEA-N) CLEARANT INC  
 COUNTRY COUNT: 109  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2004211916	A1	20041028	(200476)*		32
WO 2004095062	A2	20041104	(200476)	EN	
RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
US 6979829	B2	20051227	(200603)		
EP 1618412	A2	20060125	(200608)	EN	
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR					
MX 2005011419	A1	20051201	(200629)		

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2004211916	A1	US 2003-420932	20030423
WO 2004095062	A2	WO 2004-US12571	20040423
US 6979829	B2	US 2003-420932	20030423
EP 1618412	A2	EP 2004-760151	20040423
		WO 2004-US12571	20040423
MX 2005011419	A1	WO 2004-US12571	20040423
		MX 2005-11419	20051024

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1618412	A2 Based on	WO 2004095062
MX 2005011419	A1 Based on	WO 2004095062

PRIORITY APPLN. INFO: US 2003-420932 20030423

AN 2004-774772 [76] WPIDS

AB US2004211916 A UPAB: 20041125

NOVELTY - A measuring device comprises material(s) that absorbs radiation in a quantifiable manner, and cooling agent(s) for maintaining the material in a predetermined temperature range between neg. 120 deg. C and ambient temperature during irradiation.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for:

(a) determining the amount of energy absorbed by a product undergoing irradiation comprising placing in a container a product(s) to be **sterilized** and measuring device(s), irradiating the container containing the product and device, and analyzing the material to determine the amount of energy absorbed during irradiation; and

(b) maintaining the temperature of a product undergoing irradiation in a predetermined temperature range between -120 deg. C and ambient temperature comprising placing product(s) to be irradiated in a container having side(s) and bottom where the volume defined by container is greater than the volume of product, placing cooling agent(s) in the container

between product and side(s), and irradiating the container containing the product and cooling agent with ionizing radiation.

USE - For measuring the amount of energy absorbed by a product undergoing **sterilization** with radiation (claimed).

ADVANTAGE - The invention measures the amount of energy absorbed by a product undergoing irradiation.

DESCRIPTION OF DRAWING(S) - The figure shows a measuring device.  
Dwg.1/11

L19 ANSWER 6 OF 16 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN  
ACCESSION NUMBER: 2004-191156 [18] WPIDS  
DOC. NO. NON-CPI: N2004-151646  
DOC. NO. CPI: C2004-075387  
TITLE: Method for **sterilizing a biological material** e.g. tissue, blood proteins that is sensitive to radiation, involves irradiating the **biological material** with radiation.  
DERWENT CLASS: A96 B04 C07 D22 P34  
INVENTOR(S): BURGESS, W; CALVERT, G; DROHAN, W N; KENT, R S; LYNCH, T; MACPHEE, M; MANN, D; MIEKKA, S; BURGESS, W H; MACPHEE, M J; MANN, D M  
PATENT ASSIGNEE(S): (BURG-I) BURGESS W; (CALV-I) CALVERT G; (DROH-I) DROHAN W N; (KENT-I) KENT R S; (LYNC-I) LYNCH T; (MACP-I) MACPHEE M; (MANN-I) MANN D; (MIEK-I) MIEKKA S; (CLEA-N) CLEARANT INC  
COUNTRY COUNT: 104  
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2004009137	A2	20040129	(200418)*	EN	106
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
US 2004033160	A1	20040219	(200418)		
AU 2003253947	A1	20040209	(200450)		
EP 1539254	A2	20050615	(200539)	EN	
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR					
US 6908591	B2	20050621	(200543)		

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2004009137	A2	WO 2003-US22229	20030717
US 2004033160	A1	US 2002-197249	20020718
AU 2003253947	A1	AU 2003-253947	20030717
EP 1539254	A2	EP 2003-765620	20030717
		WO 2003-US22229	20030717
US 6908591	B2	US 2002-197249	20020718

## FILING DETAILS:

PATENT NO	KIND	PATENT NO

AU 2003253947 A1 Based on WO 2004009137  
EP 1539254 A2 Based on WO 2004009137

PRIORITY APPLN. INFO: US 2002-197249 20020718

AN 2004-191156 [18] WPIDS

AB WO2004009137 A UPAB: 20040316

NOVELTY - **Sterilizing a biological material**

(A) that is sensitive to radiation, involves irradiating (A) with radiation under conditions such that the temperature of (A) increases during the irradiating from an initial temperature to a final temperature (Tf). The increase in the temperature of (A) is equal to the total dose of the radiation divided by the specific heat capacity of (A).

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for **sterilizing (A) involving:**

(a) determining the maximum acceptable temperature (Tmax) for (A) during the irradiation; and

(b) irradiating (A) with radiation such that the temperature of (A) increases during the irradiating from an initial temperature (Ti) to a final temperature to (Tf).

The Ti is not more than Tmax - T or is not more than Tmax - Tobs where T is equal to the total dose of the radiation (D) divided by the specific heat capacity (c) of the **biological material** and Tobs is determined by a process involving irradiating a sample of the **biological material** or a suitable substitute with the radiation such that (A) is to be irradiated in the step (a2) while measuring the increase in temperature of the sample.

USE - For **sterilizing a biological material** (e.g. dextrose, urokinase, thrombin, purified protein fraction, blood, blood cells, alpha -1 proteinase inhibitor, digestive enzymes (e.g. galactosidase or sulfatases), blood proteins (e.g. albumin, Factor VIII, Factor VII, Factor IV, fibrinogen, monoclonal immunoglobulins or polyclonal immunoglobulins) or **tissue** (e.g. tendons, nerves, bone, teeth, bone marrow, skin grafts, cartilage, corneas, arteries, veins, organs for transplantation, heart valves, ligaments or demineralized bone matrix), milk, or serum or plasma (e.g. fetal bovine serum or bovine serum)) that is sensitive to radiation and the **sterilized biological material** is useful for prophylaxis or treatment of a condition or disease in a mammal (claimed).

ADVANTAGE - The recovery of the desired activity of the **biological material** after **sterilization** by irradiation is greater than 100% of the pre-irradiation value, at least 100%, at least 90%, at least 80%, at least 70%, at least 60% or at least 50% of the pre-irradiation value. Without an adverse effect on the **biological material**, the method **reduces** the levels of at least one more active biological contaminants or pathogens contained in it e.g. viruses, bacteria (including inter- and intracellular bacteria such as mycoplasmas, urea plasmas, nanobacteria, Chlamydia, rickettsias), yeasts, molds, fungi, spores, prions or similar agents responsible alone or in combination for transmissible spongiform encephalopathies and single or multicellular parasites.

Dwg.0/3

L19 ANSWER 7 OF 16 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2004-121525 [12] WPIDS

DOC. NO. NON-CPI: N2004-097378

DOC. NO. CPI: C2004-048657

TITLE: **Sterilizing biological**

**material e.g. milk, that is sensitive to ionizing radiation by reducing residual solvent content**

of a biological material to protect the material from the ionizing radiation and irradiating the biological material.

DERWENT CLASS: B04 D13 D22 P34

INVENTOR(S): BURGESS, W; DROHAN, W; KENT, R; MACPHEE, M; MANN, D;  
BURGESS, W H; DROHAN, W N; KENT, R S; MACPHEE, M J; MANN, D M

PATENT ASSIGNEE(S): (BURG-I) BURGESS W; (DROH-I) DROHAN W; (KENT-I) KENT R;  
(MACP-I) MACPHEE M; (MANN-I) MANN D; (CLEA-N) CLEARANT INC

COUNTRY COUNT: 103

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2004013562	A1	20040122	(200412)*		44
WO 2004009138	A2	20040129	(200413)	EN	
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
AU 2003252001	A1	20040209	(200450)		
AU 2003252001	A8	20051027	(200624)		

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2004013562	A1	US 2002-197251	20020718
WO 2004009138	A2	WO 2003-US22400	20030718
AU 2003252001	A1	AU 2003-252001	20030718
AU 2003252001	A8	AU 2003-252001	20030718

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003252001	A1 Based on	WO 2004009138
AU 2003252001	A8 Based on	WO 2004009138

PRIORITY APPLN. INFO: US 2002-197251 20020718

AN 2004-121525 [12] WPIDS

AB US2004013562 A UPAB: 20040218

NOVELTY - Sterilizing a biological material

that is sensitive to ionizing radiation comprises:

(a) reducing the residual solvent content of a biological material to a level effective to protect the biological material from the ionizing radiation; and

(b) irradiating the biological material with a suitable ionizing radiation at an effective rate for a time effective to sterilize the biological material.

USE - The method is useful for sterilizing a biological material e.g. milk, that is sensitive to ionizing radiation (claimed).

Dwg.0/26

L19 ANSWER 8 OF 16 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2004-121524 [12] WPIDS  
 DOC. NO. NON-CPI: N2004-097377  
 DOC. NO. CPI: C2004-048656  
 TITLE: **Sterilizing a biological material** that is sensitive to ionizing radiation by **reducing** the residual solvent content of a **biological material** to protect the material from the ionizing radiation and irradiating the **biological material**.  
 DERWENT CLASS: B04 B05 D13 D22 P34  
 INVENTOR(S): BURGESS, W; DROHAN, W N; KENT, R S; MACPHEE, M; MANN, D;  
 BURGESS, W H; MACPHEE, M J; MANN, D M  
 PATENT ASSIGNEE(S): (BURG-I) BURGESS W; (DROH-I) DROHAN W N; (KENT-I) KENT R S; (MACP-I) MACPHEE M; (MANN-I) MANN D; (CLEA-N) CLEARANT INC  
 COUNTRY COUNT: 103  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2004013561	A1	20040122	(200412)*		44
WO 2004009139	A1	20040129	(200413)	EN	
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
AU 2003252019	A1	20040209	(200450)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2004013561	A1	US 2002-197246	20020718
WO 2004009139	A1	WO 2003-US22450	20030718
AU 2003252019	A1	AU 2003-252019	20030718

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003252019	A1 Based on	WO 2004009139

PRIORITY APPLN. INFO: US 2002-197246 20020718

AN 2004-121524 [12] WPIDS

AB US2004013561 A UPAB: 20040218

NOVELTY - **Sterilizing a biological material** that is sensitive to ionizing radiation comprises **reducing** the residual solvent content of a **biological material** to a level effective to protect the **biological material** from the ionizing radiation and irradiating the **biological material** with a suitable ionizing radiation at an effective rate for a time effective to **sterilize** the **biological material**.

USE - The method is useful for **sterilizing a biological material** that is sensitive to ionizing radiation (claimed).

Dwg.0/26

L19 ANSWER 9 OF 16 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 2004-088905 [09] WPIDS  
 CROSS REFERENCE: 2003-697404 [66]; 2004-020787 [02]  
 DOC. NO. CPI: C2004-036228  
 TITLE: **Sterilization of one or more tissues**  
 that are sensitive to radiation involves irradiating  
**tissues** with radiation for a time and at a rate  
 both effective to **sterilize tissues**  
 and to protect **tissues** from radiation.  
 DERWENT CLASS: A96 D22 E19  
 INVENTOR(S): BURGESS, W; DROHAN, W N; MACPHEE, M J; MANN, D M  
 PATENT ASSIGNEE(S): (BURG-I) BURGESS W; (DROH-I) DROHAN W N; (MACP-I) MACPHEE  
 M J; (MANN-I) MANN D M  
 COUNTRY COUNT: 1  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2003185702	A1	20031002	(200409)*		83

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2003185702	A1	US 2002-60208	20020201

PRIORITY APPLN. INFO: US 2002-60208 20020201

AN 2004-088905 [09] WPIDS  
 CR 2003-697404 [66]; 2004-020787 [02]  
 AB US2003185702 A UPAB: 20040205

NOVELTY - One or more **tissues** that are sensitive to radiation  
 are **sterilized** by irradiating the **tissues** with  
 radiation for a time and at a rate both effective to **sterilize**  
 the **tissues** and to protect the **tissues** from the  
 radiation.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

- (1) a composition comprising one or more **tissues**; and  
 stabilizer(s) in an amount effective to preserve the **tissues** for  
 their intended use following **sterilization** with radiation;
- (2) a method of prophylaxis or treatment of a condition or disease or  
 malfunction of a **tissue** in a mammal, comprising introducing one  
 or more **tissues sterilized** according to the above  
 method into a mammal in need; and
- (3) an assay for determining the optimal conditions for  
**sterilizing a tissue** that contains collagen without  
 adversely affective its predetermined biological characteristic or  
 property, comprising
  - (a) irradiating collagen under a predetermined set of conditions  
 effective to **sterilize the tissue**;
  - (b) determining the turbidity of the irradiated collagen; and
  - (c) repeating the irradiating and determining steps with a different  
 predetermined set of conditions until the turbidity of the irradiated  
 collagen reaches a predetermined acceptable level.

USE - **Sterilizing** one or more **tissues** that are  
 sensitive to radiation.

ADVANTAGE - The method effectively **sterilizes**  
**biological materials** and is effective for  
**reducing** the level of active biological contaminants or pathogens



without an adverse effect on the material(s).  
Dwg.0/14

L19 ANSWER 10 OF 16 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN  
ACCESSION NUMBER: 2004-081954 [08] WPIDS  
DOC. NO. CPI: C2004-033720  
TITLE: Preservation of functional **biological materials** e.g. blood components, animal **tissue** and non-cellular material involves irradiating **biological material** so as to preserve its function, and storing at suitable temperature.  
DERWENT CLASS: B04 C07 D22  
INVENTOR(S): MANDERS, C D; MANDERS, E K  
PATENT ASSIGNEE(S): (PROM-N) PROMETHEAN LIFESCIENCES INC; (PROM-N) PROMETHEAN LIFESCIENCES; (MAND-I) MANDERS C D; (MAND-I) MANDERS E K  
COUNTRY COUNT: 103  
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2003103390	A1	20031218	(200408)*	EN	44
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW					
US 2004126880	A1	20040701	(200444)		
AU 2003237391	A1	20031222	(200445)		
EP 1511377	A1	20050309	(200518)	EN	
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR					
BR 2003011824	A	20050315	(200522)		
KR 2005020971	A	20050304	(200548)		
JP 2005533041	W	20051104	(200574)		26
CN 1665388	A	20050907	(200607)		

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003103390	A1	WO 2003-US17669	20030606
US 2004126880	A1 Provisional	US 2002-387177P	20020607
		US 2003-456983	20030606
AU 2003237391	A1	AU 2003-237391	20030606
EP 1511377	A1	EP 2003-736849	20030606
		WO 2003-US17669	20030606
BR 2003011824	A	BR 2003-11824	20030606
KR 2005020971	A	KR 2004-719932	20041207
JP 2005533041	W	WO 2003-US17669	20030606
		JP 2004-510529	20030606
CN 1665388	A	CN 2003-815576	20030606

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003237391	A1 Based on	WO 2003103390

EP 1511377 A1 Based on WO 2003103390  
BR 2003011824 A Based on WO 2003103390  
JP 2005533041 W Based on WO 2003103390

PRIORITY APPLN. INFO: US 2002-387177P 20020607; US  
2003-456983 20030606

AN 2004-081954 [08] WPIDS

AB WO2003103390 A UPAB: 20040202

NOVELTY - A method of preserving functional **biological materials**, involves providing a functional **biological material**, irradiating the **biological material** so as to preserve its function, and storing the **biological material** at a suitable temperature.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a functional **biological material**; and  
(2) prophylaxis or treatment of disease or condition which involves storing the **biological material** at ambient temperature and administering the **biological material** to the patients.

USE - For preserving functional **biological materials**, such as blood components selected red blood cell, white blood cell, monocytes, platelets, clotting factors, immunoglobulins, monoglobulin and polyimmunoglobulin, animal **tissue** selected from cartilage, **bone** marrow cell suspensions, ligaments, tendons, nerves, **bone**, demineralized **bone** matrix, grafts, joints, femurs, femoral heads, teeth, skin grafts, heart valves, corneas, arteries, veins, organs, carbohydrates and collagen, non-cellular material selected from proteins, proteinaceous materials, enzymes, antigens, amino acids, peptides, sugars, lipids, and marrow, functional biochemical entities and biologically active molecules (claimed).

ADVANTAGE - The unique preservation and treatment methods render the **sterilized** product storable at ambient temperature, while maintaining the efficacy of the product's biological activity and mechanism of action. The storage of the processed material at ambient temperature **reduces** the risk of damaging the materials efficacy if handling procedures are not strictly followed. Storage at ambient temperatures also would have a major impact in the developed world by saving money on storage and transportation costs, providing a less expensive process. The **sterilizing** and storing a whole blood sample or a fraction of biologically derived proteins of plant or animal origin, substantially **reduces** or eliminates the risk of transmission of infectious diseases, particularly viral diseases. The **biological materials** are inexpensive and easily available to a large percentage of the medical community, allows for the preservation of a **biological material** without the need for refrigeration or other treatment that would result in significant additional expenses. The **sterilization** and stabilization of biological proteins, such as antibodies and other chemicals components of the blood, are stored safely at room temperature and subsequently used with greatly **reduced** risk of bacterial or specific viral contamination.

Dwg.0/21

L19 ANSWER 11 OF 16 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2004-041084 [04] WPIDS

CROSS REFERENCE: 1994-357309 [44]; 2001-146200 [15]; 2001-616374 [71];  
2002-237086 [29]; 2003-391987 [37]; 2003-512404 [48];  
2003-744870 [70]; 2004-356831 [33]; 2004-364513 [34]

DOC. NO. NON-CPI: N2004-033303

DOC. NO. CPI: C2004-016539  
 TITLE: **Sterilizing biological material** that is sensitive to radiation involves irradiating the **biological material** with radiation at a first dose rate and varying the dose rate to a second different dose rate.  
 DERWENT CLASS: A96 B04 C07 D16 D22 P34 S05  
 INVENTOR(S): BURGESS, W; CALVERT, G; DROHAN, W N; KENT, R S; LYNCH, T; MACPHEE, M; MANN, D; MIEKKA, S; BURGESS, W H; MACPHEE, M J; MANN, D M  
 PATENT ASSIGNEE(S): (BURG-I) BURGESS W; (CALV-I) CALVERT G; (DROH-I) DROHAN W N; (KENT-I) KENT R S; (LYNC-I) LYNCH T; (MACP-I) MACPHEE M; (MANN-I) MANN D; (MIEK-I) MIEKKA S; (CLEA-N) CLEARANT INC  
 COUNTRY COUNT: 103  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2003161753	A1	20030828	(200404)*		55
US 6682695	B2	20040127	(200408)		
WO 2004009143	A1	20040129	(200413)	EN	
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS					
LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK					
DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR					
KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PH PL					
PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU					
ZA ZM ZW					
AU 2003256567	A1	20040209	(200450)		

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2003161753	A1 CIP of	WO 2001-US9361	20010323
	CIP of	US 2001-973958	20011011
		US 2002-197248	20020718
US 6682695	B2 CIP of	WO 2001-US9361	20010323
	CIP of	US 2001-973958	20011011
		US 2002-197248	20020718
WO 2004009143	A1	WO 2003-US22232	20030717
AU 2003256567	A1	AU 2003-256567	20030717

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003256567	A1 Based on	WO 2004009143

PRIORITY APPLN. INFO: US 2002-197248 20020718; WO  
 2001-US9361 20010323; US  
 2001-973958 20011011

AN 2004-041084 [04] WPIDS  
 CR 1994-357309 [44]; 2001-146200 [15]; 2001-616374 [71]; 2002-237086 [29];  
 2003-391987 [37]; 2003-512404 [48]; 2003-744870 [70]; 2004-356831 [33];  
 2004-364513 [34]

AB US2003161753 A UPAB: 20040805  
 NOVELTY - **Sterilizing a biological material**  
 that is sensitive to radiation comprising irradiating the

biological material with a radiation at a first dose rate and varying the dose rate to a second different dose rate, is new. At least one of the dose rates is effective to sterilize the biological material and to protect the biological material from irradiation.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method for prophylaxis or treatment of a condition or disease in a mammal, which comprises administering to a mammal a biological material produced by the method.

USE - The method is used for sterilizing a biological material to reduce the level of biological contaminant(s) or pathogens in it, e.g. viruses, bacteria (including inter and intracellular bacteria, e.g. mycoplasmas, ureaplasmas, nanobacteria, chlamydia, rickettsias), yeasts, molds, fungi, single or multicellular parasites, and/or prions. The biological material is administered to a mammal for prophylaxis or treatment of a condition or disease in a mammal (claimed).

ADVANTAGE - The method reduces the level of active biological contaminants or pathogens without adversely affecting the biological material. The stabilizing process and the rate of irradiation effectively protect the biological material from the radiation. The residual solvent content of the biological material is at a level that effectively preserves the biological material for its intended use following sterilization with radiation.

Dwg.0/0

L19 ANSWER 12 OF 16 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 2003-430098 [40] WPIDS  
 DOC. NO. NON-CPI: N2003-343468  
 DOC. NO. CPI: C2003-113534  
 TITLE: Sterilization of biological materials e.g. heart valves involves irradiation of the material.  
 DERWENT CLASS: B04 B05 C03 D22 K07 K08 P34  
 INVENTOR(S): BURGESS, W; DROHAN, W N; MACPHEE, M J; MANN, D; MIEKKA, S; BURGESS, W H; MANN, D M  
 PATENT ASSIGNEE(S): (BURG-I) BURGESS W; (DROH-I) DROHAN W N; (MACP-I) MACPHEE M J; (MANN-I) MANN D; (MIEK-I) MIEKKA S; (CLEA-N) CLEARANT INC  
 COUNTRY COUNT: 101  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2003026703	A1	20030403	(200340)*	EN	51
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW					
US 2003095890	A1	20030522	(200341)		
EP 1438077	A1	20040721	(200447)	EN	
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR					
AU 2002326816	A1	20030407	(200460)		
KR 2004044984	A	20040531	(200463)		
JP 2005503239	W	20050203	(200516)		164

CN 1585651 A 20050223 (200537)  
 MX 2004002720 A1 20051101 (200625)  
 ZA 2004001975 A 20060628 (200648) 109

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003026703	A1	WO 2002-US28134	20020924
US 2003095890	A1	US 2001-960703	20010924
EP 1438077	A1	EP 2002-761560	20020924
		WO 2002-US28134	20020924
AU 2002326816	A1	AU 2002-326816	20020924
KR 2004044984	A	KR 2004-704290	20040324
JP 2005503239	W	WO 2002-US28134	20020924
		JP 2003-530337	20020924
CN 1585651	A	CN 2002-820861	20020924
MX 2004002720	A1	WO 2002-US28134	20020924
		MX 2004-2720	20040323
ZA 2004001975	A	ZA 2004-1975	20040311

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1438077	A1 Based on	WO 2003026703
AU 2002326816	A1 Based on	WO 2003026703
JP 2005503239	W Based on	WO 2003026703
MX 2004002720	A1 Based on	WO 2003026703

PRIORITY APPLN. INFO: US 2001-960703 20010924

AN 2003-430098 [40] WPIDS

AB WO2003026703 A UPAB: 20030624

NOVELTY - **Sterilization of a biological material** (a) containing a non-aqueous solvent involves irradiation of (a).

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a composition comprising (a) and optionally at least one stabilizer preserving (a) following **sterilization** with radiation. The total protein concentration of (a) is (0.5 - 50)%.

ACTIVITY - Antibacterial; Fungicide; Antiparasitic; Virucide. No biological test data provided.

MECHANISM OF ACTION - None given.

USE - For **sterilizing the biological material** (e.g. urokinase, immunoglobulin, thrombin, trypsin, albumin, purified protein factor, or **tissue** (preferably heart valves and de-mineralized **bone matrix**)), which is useful for the treatment of infection (claimed); for **reducing** contaminants and pathogens (e.g. virus, bacteria, yeasts, mold, fungi, prion or similar agents responsible, for transmissible spongiform encephalopathies (TSEs) and parasites) from the material used in human, veterinary, diagnostic and experimental analysis.

ADVANTAGE - The method **reduces** level of biological contaminants and pathogens without an adverse side effect on the **biological materials**. The stabilization processes protect the **biological material** from the radiation during **sterilization** by **reducing** damage due to reactive oxygen species. The residual solvent content of either at most 15 (preferably at most 10 - at most 0.08) % or (0 - 33)% in the **biological material** preserves the material during

irradiation. The method maintains viability of the **biological material** e.g. protein activity.  
Dwg.0/7

L19 ANSWER 13 OF 16 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 2003-391987 [37] WPIDS  
 CROSS REFERENCE: 1994-357309 [44]; 2001-146200 [15]; 2001-616374 [71];  
 2002-237086 [29]; 2003-512404 [48]; 2003-744870 [70];  
 2004-041084 [04]; 2004-356831 [33]; 2004-364513 [34]  
 DOC. NO. NON-CPI: N2003-313143  
 DOC. NO. CPI: C2003-104135  
 TITLE: **Sterilizing biological material** e.g. blood proteins, blood, that is sensitive to radiation, by irradiating material with radiation for time and at rate effective to **sterilize** and protect the material from radiation.  
 DERWENT CLASS: A96 B04 B05 D22 E19 P34  
 INVENTOR(S): BURGESS, W; DROHAN, W N; HORTON, E; KENT, R S; MACPHEE, M J; MANN, D M; MIEKKA, S I; BURGESS, W H; MIEKKA, S  
 PATENT ASSIGNEE(S): (BURG-I) BURGESS W; (DROH-I) DROHAN W N; (HORT-I) HORTON E; (KENT-I) KENT R S; (MACP-I) MACPHEE M J; (MANN-I) MANN D M; (MIEK-I) MIEKKA S I; (CLEA-N) CLEARANT INC  
 COUNTRY COUNT: 101  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2003012687	A1	20030116	(200337)*	167	
WO 2003030949	A1	20030417	(200337)	EN	
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
AU 2002339962	A1	20030422	(200460)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2003012687	A1 Cont of	US 2000-533547	20000323
	CIP of	WO 2001-US9361	20010323
		US 2001-973958	20011011
WO 2003030949	A1	WO 2002-US29854	20021011
AU 2002339962	A1	AU 2002-339962	20021011

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2002339962	A1 Based on	WO 2003030949

PRIORITY APPLN. INFO: US 2001-973958 20011011; US  
 2000-533547 20000323; WO  
 2001-US9361 20010323

AN 2003-391987 [37] WPIDS  
 CR 1994-357309 [44]; 2001-146200 [15]; 2001-616374 [71]; 2002-237086 [29];

2003-512404 [48]; 2003-744870 [70]; 2004-041084 [04]; 2004-356831 [33];  
2004-364513 [34]

AB US2003012687 A UPAB: 20040920

**NOVELTY - Sterilizing (M1) a biological**

**material (B)** that is sensitive to radiation, involves irradiating (B) with radiation for a time and at a rate effective to **sterilize (B)** and to protect (B) from the radiation.

**DETAILED DESCRIPTION - Sterilizing (B)** that is sensitive to radiation, involves irradiating (B) with radiation for a time and at a rate effective to **sterilize (B)** and to protect (B) from the radiation. Protecting (B) involves applying to (B) at least one stabilizing process chosen from:

- (1) adding to (B) at least one stabilizer;
- (2) **reducing** the residual solvent content of (B);
- (3) **reducing** the temperature of (B);
- (4) **reducing** the oxygen content of (B);
- (5) adjusting the pH of (B); and
- (6) adding to (B) at least one non-aqueous solvent.

The protecting step is followed by irradiating (B) with a suitable radiation at an effective rate for a time effective to **sterilize (B)**, where at least one stabilizing process and the rate of irradiation are together effective to protect (B) from the radiation. Optionally, at least two stabilizing processes are together effective to protect (B) from the radiation and further where at least two stabilizing processes may be performed in any order. effective to protect (B) from the radiation

**INDEPENDENT CLAIMS** are included for the following:

(1) composition (C1) comprising at least one (B) and a stabilizer to preserve (B) for its intended use following **sterilization** with radiation;

(2) composition (C2) comprising at least one (B), where the residual solvent content of (B) is at a level effective to preserve (B) for its intended use following **sterilization** with radiation; and

(3) prophylaxis or treatment (M2) of a condition or disease in a mammal, involves administering (B) made by the above method, to the mammal.

**ACTIVITY -** Antiviral; Antibacterial; Antifungal; Antiparasitic.

**MECHANISM OF ACTION -** None given.

**USE - (M1)** is useful for **sterilizing** a radiation-sensitive **biological material** containing at least one biological contaminant or pathogen such as viruses, bacterial, yeasts, molds, fungi, parasites and prions or similar agents responsible, alone or in combination, for transmissible spongiform encephalopathies (TSE), by radiation such as corpuscular radiation, electromagnetic radiation (radiowaves, microwaves, visible and invisible light, ultraviolet light, x-ray radiation, gamma -radiation or its combination) or mixture of the radiations. The radiation is optionally E-beam radiation, polychromatic visible light, infrared, or a combination of one or more wavelengths of visible and ultraviolet light. (M2) is useful for prophylaxis or treatment of a condition or disease in a mammal. (C1) or (C2) is useful for prophylaxis or treatment of a condition or disease in a mammal (all claimed).

**ADVANTAGE -** The recovery of the desired activity of (B) after **sterilization** by irradiation is greater than or at least 100% (at least 50%) of the pre-irradiation value (claimed). The method **sterilizes biological materials** by **reducing** the level of active biological contaminants or pathogens without adversely affecting the material.

Dwg.0/49

ACCESSION NUMBER: 2003-300833 [29] WPIDS  
 DOC. NO. NON-CPI: N2003-239305  
 DOC. NO. CPI: C2003-078486  
 TITLE: Method of sterilizing a preparation containing  
 albumin useful in treating e.g. burns comprises  
 stabilizing the preparation followed by irradiating.  
 DERWENT CLASS: B04 D22 P34  
 INVENTOR(S): BURGESS, W H; DROHAN, W N; GRIKO, Y; KENT, R S; MACPHEE,  
 M J; MANN, D M; MIEKKA, S I; BURGESS, W; DROHAN, W;  
 MACPHEE, M; MIEKKA, S; ATSMAN, B; BOGUCKI, D; BRIDGER, G  
 J; CRAWFORD, J; DE FLURI, M R; HARWIG, C; KALLE, A;  
 MCEACHERN, E J; NAN, S; SCHOLS, D; SKERLJ, R T; SMITH, C  
 D; WILSON, T; ZHOU, Y; KENT, R; MANN, D  
 PATENT ASSIGNEE(S): (CLEA-N) CLEARANT INC; (GRIK-I) GRIKO Y; (ANOR-N) ANORMED  
 INC; (BURG-I) BURGESS W; (DROH-I) DROHAN W N; (KENT-I)  
 KENT R; (MACP-I) MACPHEE M J; (MANN-I) MANN D; (MIEK-I)  
 MIEKKA S I  
 COUNTRY COUNT: 101  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2003020325	A2	20030313	(200329)*	EN	39
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW					
US 2003213920	A1	20031120	(200377)		
EP 1432454	A2	20040630	(200443)	EN	
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR					
AU 2002332806	A1	20030318	(200452)		
KR 2004032972	A	20040417	(200454)		
JP 2005505552	W	20050224	(200516)	127	
CN 1606457	A	20050413	(200554)		
IN 2004000593	P1	20050401	(200559)	EN	
IN 2004000593	P2	20060616	(200648)	EN	

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003020325	A2	WO 2002-US27947	20020903
US 2003213920	A1	US 2001-942941	20010831
EP 1432454	A2	EP 2002-797840	20020903
		WO 2002-US27947	20020903
AU 2002332806	A1	AU 2002-332806	20020903
KR 2004032972	A	KR 2004-702869	20040227
JP 2005505552	W	WO 2002-US27947	20020903
		JP 2003-524630	20020903
CN 1606457	A	CN 2002-818098	20020903
IN 2004000593	P1	WO 2002-US27947	20020903
		IN 2004-DN593	20040309
IN 2004000593	P2	WO 2002-US41407	20021223
		IN 2004-KN593	20040506

## FILING DETAILS:



PATENT NO	KIND	PATENT NO
EP 1432454	A2 Based on	WO 2003020325
AU 2002332806	A1 Based on	WO 2003020325
JP 2005505552	W Based on	WO 2003020325

PRIORITY APPLN. INFO: US 2001-942941 20010831; US  
2001-342176P 20011221

AN 2003-300833 [29] WPIDS

AB WO2003020325 A UPAB: 20030505

NOVELTY - Method of **sterilizing** a preparation (P') containing albumin that is sensitive to radiation comprises:

(1) stabilizing (P') by at least one (preferably at least two) process comprising:

- (a) **reducing** the residual solvent content of (P');
- (b) **reducing** the temperature of (P'); and/or
- (c) adding at least one stabilizer to (P'); and
- (2) irradiating (P') with a radiation.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) a composition comprising at least one preparation (P1) containing albumin and at least one stabilizer to preserve (P1) following **sterilization** with radiation;

(2) a composition comprising at least one preparation (P2) containing albumin where residual solvent content of (P2) is at a level to preserve (P2) following **sterilization** with radiation;

(3) a method of treating hypovolemic shock, burns, acute liver failure, hypoalbumenemia, hypoproteinemia, adult respiratory distress syndrome, neonatal hemolytic disease, acute nephrosis, shock due to hemorrhage, burns, crushing injuries, abdominal emergencies, dehydration, or infection comprising the administration of **sterilized** (P');

(4) a method of preventing shock or hypotension in a human undergoing renal dialysis comprising the administration of **sterilized** (P');

(5) a method of preventing sequestration of protein rich fluids in a patient suffering from acute peritonitis, pancreatitis, mediastinitis and excessive cellulitis, comprising the administration of **sterilized** (P');

(6) a method of maintaining fluid volume in a human undergoing cardiopulmonary bypass comprising the administration of **sterilized** (P'); and

(7) a method of culturing cells or improving a product of cell metabolism by culturing cells, comprising adding **sterilized** (P') to the growth medium.

ACTIVITY - Vulnerary; Hepatotropic; Hypertensive; Hemostatic; Vasotropic; Antiinflammatory.

MECHANISM OF ACTION - None given.

USE - For **sterilizing** a preparation containing albumin that is sensitive to radiation, useful in treating hypovolemic shock, treating burns, acute liver failure, sequestration of protein, hypoalbumenemia, hypoproteinemia, adult respiratory distress syndrome, neonatal hemolytic disease, acute nephrosis, shock due to burns, crushing injuries, abdominal emergencies, dehydration, hypertension and hemorrhage; preventing shock or hypotension in a human undergoing renal dialysis; for maintaining fluid volume in a human undergoing cardiopulmonary bypass; in improving method of culturing cell and producing a product (e.g. protein and recombinant protein) of cell metabolism by culturing cells (all claimed).

ADVANTAGE - The method **reduces** level of biological contaminants or pathogens e.g. virus, bacteria, yeasts, mold, fungi, prion or similar agents responsible for transmissible spongiform encephalopathies (TSEs) and single or multicellular parasites without an

adverse side effect on the preparations.

Dwg.0/7

L19 ANSWER 15 OF 16 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 2001-616374 [71] WPIDS  
 CROSS REFERENCE: 1994-357309 [44]; 2001-146200 [15]; 2002-237086 [29];  
 2003-391987 [37]; 2003-512404 [48]; 2003-744870 [70];  
 2004-041084 [04]; 2004-356831 [33]  
 DOC. NO. NON-CPI: N2001-459767  
 DOC. NO. CPI: C2001-184534  
 TITLE: **Sterilization of ionizing radiation-sensitive  
 biological material, e.g. blood,  
 involves adding stabilizers to biological  
 material prior to irradiation.**  
 DERWENT CLASS: B04 D16 D22 P34  
 INVENTOR(S): HORTON, E A; KENT, R S; BEALL, D; MACPHEE, M J  
 PATENT ASSIGNEE(S): (CLEA-N) CLEARANT INC; (HORT-I) HORTON E A; (KENT-I) KENT  
 R S  
 COUNTRY COUNT: 96  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001070279	A1	20010927	(200171)*	EN	85
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2001059031	A	20011003	(200210)		
EP 1299131	A1	20030409	(200325)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					
KR 2003011279	A	20030207	(200339)		
ZA 2002008120	A	20030625	(200348)		94
US 2003143106	A1	20030731	(200354)		
BR 2001009764	A	20030701	(200356)		
CN 1427729	A	20030702	(200361)		
JP 2003527210	W	20030916	(200362)		80
MX 2002009321	A1	20030501	(200415)		
US 2004067157	A1	20040408	(200426)		
US 2004101436	A1	20040527	(200435)		
US 2004101437	A1	20040527	(200435)		
NZ 521392	A	20040625	(200445)		
IN 2002001194	P2	20050708	(200574)	EN	
US 2006140815	A1	20060629	(200643)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001070279	A1	WO 2001-US9361	20010323
AU 2001059031	A	AU 2001-59031	20010323
EP 1299131	A1	EP 2001-932512	20010323
		WO 2001-US9361	20010323
KR 2003011279	A	KR 2002-712568	20020923
ZA 2002008120	A	ZA 2002-8120	20021009
US 2003143106	A1	WO 2001-US9361	20010323
		US 2002-239231	20020920

BR 2001009764	A		BR 2001-9764	20010323
			WO 2001-US9361	20010323
CN 1427729	A		CN 2001-809086	20010323
JP 2003527210	W		JP 2001-568474	20010323
			WO 2001-US9361	20010323
MX 2002009321	A1		WO 2001-US9361	20010323
			MX 2002-9321	20020923
US 2004067157	A1	CIP of	US 1993-95698	19930722
		CIP of	WO 1994-CA401	19940722
		CIP of	US 1995-573149	19951215
		Cont of	US 2000-533547	20000323
			US 2003-457451	20030610
US 2004101436	A1	CIP of	US 1993-95698	19930722
		CIP of	WO 1994-CA401	19940722
		CIP of	US 1995-573149	19951215
		Cont of	US 2000-533547	20000323
			US 2003-694733	20031029
US 2004101437	A1	CIP of	US 1993-95698	19930722
		CIP of	WO 1994-CA401	19940722
		CIP of	US 1995-573149	19951215
		Cont of	US 2000-533547	20000323
			US 2003-694734	20031029
NZ 521392	A		NZ 2001-521392	20010323
			WO 2001-US9361	20010323
IN 2002001194	P2		WO 2001-US9361	20010323
			IN 2002-KN1194	20020923
US 2006140815	A1	Cont of	WO 2001-US9361	20010323
		Cont of	US 2002-239231	20020920
			US 2005-252618	20051019

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2001059031	A Based on	WO 2001070279
EP 1299131	A1 Based on	WO 2001070279
BR 2001009764	A Based on	WO 2001070279
JP 2003527210	W Based on	WO 2001070279
MX 2002009321	A1 Based on	WO 2001070279
US 2004067157	A1 CIP of	US 5362442
	CIP of	US 6171549
US 2004101436	A1 CIP of	US 5362442
	CIP of	US 6171549
US 2004101437	A1 CIP of	US 5362442
	CIP of	US 6171549
NZ 521392	A Based on	WO 2001070279

PRIORITY APPLN. INFO: US 2000-533547 20000323; US  
 2002-239231 20020920; US  
 1993-95698 19930722; WO  
 1994-CA401 19940722; US  
 1995-573149 19951215; US  
 2003-457451 20030610; US  
 2003-694733 20031029; US  
 2003-694734 20031029; US  
 2005-252618 20051019

AN 2001-616374 [71] WPIDS  
 CR 1994-357309 [44]; 2001-146200 [15]; 2002-237086 [29]; 2003-391987 [37];  
 2003-512404 [48]; 2003-744870 [70]; 2004-041084 [04]; 2004-356831 [33]  
 AB WO 200170279 A UPAB: 20060706

**NOVELTY - Sterilizing biological material**

that is sensitive to ionizing radiation, comprising adding stabilizers to protect the material from ionizing radiation and then irradiating the material, is new.

**USE - The method sterilizes a biological material** that is sensitive to ionizing radiation to **reduce** the level of active biological contaminants, e.g. viruses, bacteria, yeasts, molds, mycoplasmas, and/or parasites. The **biological material** is blood or a blood component, e.g. proteinaceous material, clotting factor, albumin, urokinase, polyclonal immunoglobulins and/or monoclonal immunoglobulins, (processed) mammalian **tissue** or a **tissue** component, **bone** or a **bone** component, demineralized **bone** matrix, a recombinantly-produced **biological material**, a transgenic **biological material**, a food or a botanical product, a carbohydrate or polysaccharide, chitin, chitosan, nitric oxide-carboxy (NOCC) chitosan, or a product of cellular metabolism. The clotting factor is Thrombin, Factor II (Prothrombin), Factor V (Proaccelerin), Factor VII (Proconvertin, serum prothrombin conversion), Factor VIIa, Factor VIII (Antihemophilic factor A), Factor IX (Plasma thromboplastin antecedent), Factor X (Stuart-Prower Factor), Factor XIII (Protansglutamidase), Factor XIIIa, Von Willebrand's Factor or Fibrinogen. The immunoglobulins are immunoglobulin G and/or immunoglobulin M. (All claimed)

**ADVANTAGE - The method reduces** the level of active biological contaminants without adversely effecting the **biological material**.

Dwg.0/26

L19 ANSWER 16 OF 16 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 2001-327858 [34] WPIDS  
 DOC. NO. NON-CPI: N2001-235909  
 DOC. NO. CPI: C2001-100483  
 TITLE: Low temperature processing and high temperature sterilization apparatus has product, heat transfer fluid, vacuum chamber, vacuum pump, and expansion device.  
 DERWENT CLASS: A97 B07 D13 D22 E19 P34 Q76  
 INVENTOR(S): TUMA, P E  
 PATENT ASSIGNEE(S): (MINN) 3M INNOVATIVE PROPERTIES CO  
 COUNTRY COUNT: 95  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001014809	A1	20010301	(200134)*	EN	52
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW					
AU 2000061085	A	20010319	(200136)		
EP 1210558	A1	20020605	(200238)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
JP 2003507146	W	20030225	(200317)		54
US 6610250	B1	20030826	(200357)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001014809	A1	WO 2000-US19526	20000718
AU 2000061085	A	AU 2000-61085	20000718
EP 1210558	A1	EP 2000-947489	20000718
		WO 2000-US19526	20000718
JP 2003507146	W	WO 2000-US19526	20000718
		JP 2001-518639	20000718
US 6610250	B1	US 1999-379165	19990823

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000061085	A Based on	WO 2001014809
EP 1210558	A1 Based on	WO 2001014809
JP 2003507146	W Based on	WO 2001014809

PRIORITY APPLN. INFO: US 1999-379165 19990823

AN 2001-327858 [34] WPIDS

AB WO 200114809 A UPAB: 20010620

NOVELTY - A low temperature processing and high temperature **sterilization** apparatus includes a product, a heat transfer fluid, a **vacuum** chamber, a **vacuum** pump, and an expansion device.

DETAILED DESCRIPTION - A low temperature processing and high temperature **sterilization** apparatus comprises a product, a heat transfer fluid having a saturation temperature at a system pressure below the **sterilization** temperature, a **vacuum** chamber (12) requiring **sterilization** comprising passageway(s) (13) for the heat transfer fluid, a **vacuum** pump (14) in fluid connection with the passageways, and an expansion device (16) to accommodate the equivalent volume of fluid in the passageways and thermal expansion of the fluid. During **sterilization**, a portion of the fluid vaporizes causing the non-vaporized portion of the fluid to evacuate the passageway in the chamber in such a way that a liquid (16a)-vapor (16b) interface forms outside of the passageways.

An INDEPENDENT CLAIM is also included for a method of **sterilizing** a low temperature processing chamber by allowing energy to flow from **sterilization** device to a heat transfer fluid so that some of the fluid vaporizes, causing the non-vaporized fluid to flow to an expansion device, causing a liquid-vapor interface to form outside of the passageways, completing the **sterilization** chamber, cooling the chamber, and allowing the fluid to refill the passageways.

USE - The invention is used for low temperature processing and high temperature **sterilization**. It is particularly useful for pharmaceutical freeze-drying. The products which can be treated are pharmaceutical drug, **food**, **biological material**, parenteral material, or a delivery system for materials.

ADVANTAGE - The invention allows volatile halogenated organic compounds with good heat transfer properties at low temperatures, non-corrosivity, non-flammability, and low toxicity to be used in low temperature processes requiring high temperature **sterilization**.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic view of the apparatus.

Vacuum chamber 12  
 Passageway 13  
 Vacuum pump 14  
 Expansion device 16

Liquid 16a  
Vapor 16b  
Dwg.1/12

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L4      2 SEA FILE=REGISTRY ABB=ON  (ARGON OR NITROGEN)/CN
L5      3 SEA FILE=REGISTRY ABB=ON  (HYDROGEN OR HYDROGEN SULFIDE OR
      CARBON MONOXIDE)/CN
L6      26056 SEA FILE=HCAPLUS ABB=ON  ?BIOLOGICS? OR ?BIOLOGICAL?(W) (?MATERI
      AL? OR ?TISSUE?)
L7      225 SEA FILE=HCAPLUS ABB=ON  L6 AND (?STERILIZ? OR ?DEACTIVAT?)
L9      1 SEA FILE=HCAPLUS ABB=ON  L7 AND ?ADVENTITIOUS?
L11     54 SEA FILE=HCAPLUS ABB=ON  L7 AND (?INERT? OR ?REDUC? OR
      ?VACUUM?)
L12     10 SEA FILE=HCAPLUS ABB=ON  L11 AND (L4 OR ?ARGON? OR ?NITROGEN?)
L13     5 SEA FILE=HCAPLUS ABB=ON  L11 AND (L5 OR ?HYDROGEN? OR ?HYDROGEN
      ?(W)?SULFID? OR ?CARBON?(W)?MONOXID?)
L14     54 SEA FILE=HCAPLUS ABB=ON  L11 OR L12 OR L13 OR L9
L15     27 SEA FILE=HCAPLUS ABB=ON  L14 AND (?BONE? OR ?FOOD? OR ?TISSUE?)
L20     3134 SEA FILE=USPATFULL ABB=ON  L15 AND (PRD<20010104 OR PD<20010104
      )
L21     1839 SEA FILE=USPATFULL ABB=ON  L20 AND ?BONE?
L22     41 SEA FILE=USPATFULL ABB=ON  L21 AND ?ADVENTITIOUS?
L23     41 SEA FILE=USPATFULL ABB=ON  L22 AND (?STERILIZ? OR ?ACTIVAT?)
L24     41 SEA FILE=USPATFULL ABB=ON  L23 AND ?METHOD?
L27     32 SEA FILE=USPATFULL ABB=ON  L24 AND ?GRAFT?
L28     13 SEA FILE=USPATFULL ABB=ON  L27 AND (L4 OR ?ARGON? OR ?NITROGEN?
      )

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=> d ibib abs 128 1-13

L28 ANSWER 1 OF 13 USPATFULL on STN

ACCESSION NUMBER: 2006:175282 USPATFULL

TITLE: Inhibition of NF-kappaB by triterpene compositions

INVENTOR(S): Gutterman, Jordan U., Houston, TX, UNITED STATES  
Haridas, Valsala, Houston, TX, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2006148732	A1	20060706
APPLICATION INFO.:	US 2001-992556	A1	20011116 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-249710P	20001117 (60)
	US 2001-322859P	20010917 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Robert E. Hanson, FULBRIGHT & JAWORSKI L.L.P., SUITE 2400, 600 CONGRESS AVENUE, AUSTIN, TX, 78701, US	
NUMBER OF CLAIMS:	55	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	55 Drawing Page(s)	
LINE COUNT:	9565	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides **methods** for the inhibition of inflammation by providing, to a cell, in need thereof, monoterpene compositions that inhibit NF-κB. These compositions may also contain a carrier moiety that renders the monoterpene composition membrane permeable. The carrier may include triterpenoid moieties, sugars, lipids, or even additional monoterpene moieties. The composition can also contain additional chemical functionalities. **Methods** for using these compounds to prevent and treat a wide range of inflammatory conditions, especially, premalignant inflammatory

conditions are described.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 2 OF 13 USPATFULL on STN

ACCESSION NUMBER: 2006:101389 USPATFULL

TITLE: Whole cell engineering by mutagenizing a substantial portion of a starting genome, combining mutations, and optionally repeating

INVENTOR(S): Short, Jay M., Rancho Santa Fe, CA, UNITED STATES

PATENT ASSIGNEE(S): Diversa Corporation, San Diego, CA, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 7033781	B1	20060425
APPLICATION INFO.:	US 2000-677584		20000930 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2000-594459, filed on 14 Jun 2000, PENDING Continuation-in-part of Ser. No. US 2000-552289, filed on 9 Mar 2000, Pat. No. US 6358709 Continuation-in-part of Ser. No. US 2000-498557, filed on 4 Feb 2000, PENDING Continuation-in-part of Ser. No. US 2000-495052, filed on 31 Jan 2000, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-156815P	19990929 (60) <--
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Park, Hankyel T.	
LEGAL REPRESENTATIVE:	Love, Jane M., Hale and Dorr LLP	
NUMBER OF CLAIMS:	24	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	30 Drawing Figure(s); 28 Drawing Page(s)	
LINE COUNT:	36686	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An invention comprising cellular transformation, directed evolution, and screening **methods** for creating novel transgenic organisms having desirable properties. Thus in one aspect, this invention relates to a **method** of generating a transgenic organism, such as a microbe or a plant, having a plurality of traits that are differentially **activatable**. Also, a **method** of retooling genes and gene pathways by the introduction of regulatory sequences, such as promoters, that are operable in an intended host, thus conferring operability to a novel gene pathway when it is introduced into an intended host. For example a novel man-made gene pathway, generated based on microbially-derived progenitor templates, that is operable in a plant cell. Furthermore, a **method** of generating novel host organisms having increased expression of desirable traits, recombinant genes, and gene products.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 3 OF 13 USPATFULL on STN

ACCESSION NUMBER: 2006:86223 USPATFULL

TITLE: Triterpene compositions and **methods** for use thereof

INVENTOR(S): Arntzen, Charles J., Ithaca, NY, UNITED STATES

Blake, Mary E., Tucson, AZ, UNITED STATES



Guttermann, Jordan U., Houston, TX, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2006073222	A1	20060406
APPLICATION INFO.:	US 2005-295189	A1	20051206 (11)
RELATED APPLN. INFO.:	Division of Ser. No. US 2002-238647, filed on 9 Sep 2002, PENDING Division of Ser. No. US 2001-720, filed on 30 Nov 2001, GRANTED, Pat. No. US 6962720 Division of Ser. No. US 1999-314691, filed on 19 May 1999, GRANTED, Pat. No. US 6444233		

	NUMBER	DATE	
PRIORITY INFORMATION:	US 1998-99066P	19980903 (60)	<--
	US 1998-85997P	19980519 (60)	<--
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	FULBRIGHT & JAWORSKI L.L.P., 600 CONGRESS AVE., SUITE 2400, AUSTIN, TX, 78701, US		
NUMBER OF CLAIMS:	18		
EXEMPLARY CLAIM:	1-14		
NUMBER OF DRAWINGS:	43 Drawing Page(s)		
LINE COUNT:	7638		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides novel saponin mixtures and compounds which are isolated from the species *Acacia victoriae* and methods for their use. These compounds may contain a triterpene moiety, such as acacic or oleanolic acid, to which oligosaccharides and monoterpenoid moieties are attached. The mixtures and compounds have properties related to the regulation of apoptosis and cytotoxicity of cells and exhibit potent anti-tumor effects against a variety of tumor cells.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 4 OF 13 USPATFULL on STN

ACCESSION NUMBER: 2005:22783 USPATFULL  
TITLE: WSX receptor agonist antibodies  
INVENTOR(S): Carter, Paul J., San Francisco, CA, UNITED STATES  
Chiang, Nancy Y., San Francisco, CA, UNITED STATES  
Kim, Kyung Jin, Los Altos, CA, UNITED STATES  
Matthews, William, Woodside, CA, UNITED STATES  
Rodrigues, Maria L., South San Francisco, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005019325	A1	20050127
APPLICATION INFO.:	US 2004-921710	A1	20040818 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1997-779457, filed on 7 Jan 1997, PENDING Continuation-in-part of Ser. No. US 1996-667197, filed on 20 Jun 1996, PENDING		

	NUMBER	DATE	
PRIORITY INFORMATION:	US 1996-64855P	19960108 (60)	<--
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	KNOBBE MARTENS OLSON & BEAR LLP, 2040 MAIN STREET, FOURTEENTH FLOOR, IRVINE, CA, 92614		

NUMBER OF CLAIMS: 63  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 83 Drawing Page(s)  
LINE COUNT: 6017

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The WSX receptor and antibodies which bind thereto (including agonist and neutralizing antibodies) are disclosed, including various uses therefor. Uses for WSX ligands (e.g., anti-WSX receptor agonist antibodies or OB protein) in hematopoiesis are also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 5 OF 13 USPATFULL on STN

ACCESSION NUMBER: 2004:280225 USPATFULL  
TITLE: Plant polynucleotides encoding novel prenyl proteases  
INVENTOR(S): Haertel, Heiko, Durham, NC, UNITED STATES  
Mittendorf, Volker, Durham, NC, UNITED STATES  
Henkes, Stefan, Potsdam, GERMANY, FEDERAL REPUBLIC OF  
Silva, Oswaldo da Costa e, Rheinland-Pfalz, GERMANY,  
FEDERAL REPUBLIC OF

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004219525	A1	20041104
APPLICATION INFO.:	US 2003-362902	A1	20030827 (10)
	WO 2001-US26854		20010827

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-227794P	20000825 (60) <--
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	SUTHERLAND ASBILL & BRENNAN LLP, 999 PEACHTREE STREET, N.E., ATLANTA, GA, 30309	

NUMBER OF CLAIMS: 94  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 20 Drawing Page(s)  
LINE COUNT: 9411

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides novel polynucleotides encoding plant prenyl protease polypeptides, fragments and homologs thereof. Also provided are vectors, host calls, antibodies, and recombinant **methods** for producing said polypeptides. The invention further provides novel polynucleotide, encoding plant promoters, polypeptides, fragments and homologs thereof. The invention further relates to **methods** of applying these novel plant polypeptides to the identification, prevention, and/or conferment of resistance to various plant diseases and/or disorders, particularly drought resistance.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 6 OF 13 USPATFULL on STN

ACCESSION NUMBER: 2004:101228 USPATFULL  
TITLE: Whole cell engineering by mutagenizing a substantial portion of a starting genome, combining mutations, and optionally repeating  
INVENTOR(S): Short, Jay M., Rancho Santa Fe, CA, UNITED STATES

NUMBER	KIND	DATE
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PATENT INFORMATION: US 2004077090 A1 20040422  
 APPLICATION INFO.: US 2003-383798 A1 20030306 (10)  
 RELATED APPLN. INFO.: Continuation of Ser. No. US 2000-677584, filed on 30  
 Sep 2000, ABANDONED Continuation-in-part of Ser. No. US  
 2000-594459, filed on 14 Jun 2000, GRANTED, Pat. No. US  
 6605449 Continuation-in-part of Ser. No. US  
 2000-522289, filed on 9 Mar 2000, GRANTED, Pat. No. US  
 6358709 Continuation-in-part of Ser. No. US  
 2000-498557, filed on 4 Feb 2000, PENDING  
 Continuation-in-part of Ser. No. US 2000-495052, filed  
 on 31 Jan 2000, GRANTED, Pat. No. US 6479258

	NUMBER	DATE	
PRIORITY INFORMATION:	US 1999-156815P	19990929 (60)	<--
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	HALE AND DORR LLP, 300 PARK AVENUE, NEW YORK, NY, 10022		
NUMBER OF CLAIMS:	22		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	28 Drawing Page(s)		
LINE COUNT:	37121		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An invention comprising cellular transformation, directed evolution, and screening **methods** for creating novel transgenic organisms having desirable properties. Thus in one aspect, this invention relates to a **method** of generating a transgenic organism, such as a microbe or a plant, having a plurality of traits that are differentially **activatable**. Also, a **method** of retooling genes and gene pathways by the introduction of regulatory sequences, such as promoters, that are operable in an intended host, thus conferring operability to a novel gene pathway when it is introduced into an intended host. For example a novel man-made gene pathway, generated based on microbially-derived progenitor templates, that is operable in a plant cell. Furthermore, a **method** of generating novel host organisms having increased expression of desirable traits, recombinant genes, and gene products.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 7 OF 13 USPATFULL on STN

ACCESSION NUMBER: 2004:33868 USPATFULL  
 TITLE: **Method** for treating T-lineage leukemias and lymphomas using a CD7-specific monoclonal antibody (TXU-7) linked to the pokeweed antiviral protein (PAP)  
 INVENTOR(S): Uckun, Fatih M., White Bear Lake, MN, United States  
 PATENT ASSIGNEE(S): Regents of the University of Minnesota, Minneapolis, MN, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6689362	B1	20040210
APPLICATION INFO.:	US 1999-453641		19991203 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1998-14028, filed on 27 Jan 1998, now patented, Pat. No. US 6372217		

	NUMBER	DATE	
PRIORITY INFORMATION:	US 1997-48364P	19970603 (60)	<--
DOCUMENT TYPE:	Utility		

FILE SEGMENT: GRANTED  
 PRIMARY EXAMINER: Scheiner, Laurie  
 ASSISTANT EXAMINER: Parkin, Jeffrey S.  
 LEGAL REPRESENTATIVE: Schwegman, Lundberg, Woessner & Kluth, P.A.  
 NUMBER OF CLAIMS: 14  
 EXEMPLARY CLAIM: 1  
 NUMBER OF DRAWINGS: 13 Drawing Figure(s); 9 Drawing Page(s)  
 LINE COUNT: 2127

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Acute lymphoblastic leukemia (ALL) and acute myeloid leukemia (AML) are common leukemias in both children and adults. Current treatment strategies are inadequate and often result in patient toxicity and relapse. Accordingly, the need exists for a T-cell-specific immunotoxin with sufficient stability and efficacy to eliminate cell populations associated with various T-cell malignancies. The present invention addresses this concern by providing a biotherapeutic agent (e.g., an immunoconjugate or immunotoxin) comprising a monoclonal antibody (MoAb TXU-7) specific to mammalian T-cell/myeloid antigen CD7 linked to the pokeweed antiviral protein (PAP). The CD7 antigen is expressed on human T-lineage lymphoid cells and leukemic progenitor cells in T-lineage lymphoid malignancies. PAP is a member of the hemitoxin group of toxins and **inactivates** ribosomes by the removal of a single adenosine from the conserved loop sequence found near the 3' terminus of all larger RNAs. This specific depurination abrogates the ability of elongation factors to interact with ribosomes and results in irreversible shut-down of protein synthesis. The PAP toxin was linked to the TXU-7 Mab to produce a TXU-7-PAP immunoconjugate. This immunotoxin is stable in vivo and effective in killing and eliminating CD7-expressing T-lineage leukemic cells.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 8 OF 13 USPATFULL on STN

ACCESSION NUMBER: 2003:288291 USPATFULL  
 TITLE: Triterpene compositions and **methods** for use thereof  
 INVENTOR(S): Arntzen, Charles J., Ithaca, NY, UNITED STATES  
 Blake, Mary E., Tucson, AZ, UNITED STATES  
 Gutterman, Jordan U., Houston, TX, UNITED STATES  
 PATENT ASSIGNEE(S): Research Development Foundation (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003203049	A1	20031030
APPLICATION INFO.:	US 2002-238647	A1	20020909 (10)
RELATED APPLN. INFO.:	Division of Ser. No. US 2001-720, filed on 30 Nov 2001, PENDING Division of Ser. No. US 1999-314691, filed on 19 May 1999, GRANTED, Pat. No. US 6444233		

	NUMBER	DATE	
PRIORITY INFORMATION:	US 1998-99066P	19980903 (60)	<--
	US 1998-85997P	19980519 (60)	<--
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Robert E. Hanson, FULBRIGHT & JAWORSKI L.L.P., Suite 2400, 600 Congress Avenue, Austin, TX, 78701		
NUMBER OF CLAIMS:	119		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	43 Drawing Page(s)		

LINE COUNT: 8096

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides novel saponin mixtures and compounds which are isolated from the species *Acacia victoriae* and **methods** for their use. These compounds may contain a triterpene moiety, such as acacic or oleanolic acid, to which oligosaccharides and monoterpenoid moieties are attached. The mixtures and compounds have properties related to the regulation of apoptosis and cytotoxicity of cells and exhibit potent anti-tumor effects against a variety of tumor cells.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 9 OF 13 USPATFULL on STN

ACCESSION NUMBER: 2003:78132 USPATFULL

TITLE: Triterpene compositions and **methods** for use thereof

INVENTOR(S): Haridas, Valsala, Houston, TX, UNITED STATES  
Gutterman, Jordan U., Houston, TX, UNITED STATES

PATENT ASSIGNEE(S): Research Development Foundation, Carson City, NV (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003054052	A1	20030320
	US 6689398	B2	20040210
APPLICATION INFO.:	US 2001-999495	A1	20011130 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1999-314691, filed on 19 May 1999, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-99066P	19980903 (60) <--
	US 1998-85997P	19980519 (60) <--
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Robert E. Hanson, FULBRIGHT & JAWORSKI L.L.P., Suite 2400, 600 Congress Avenue, Austin, TX, 78701	
NUMBER OF CLAIMS:	119	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	55 Drawing Page(s)	
LINE COUNT:	8111	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides novel saponin mixtures and compounds which are isolated from the species *Acacia victoriae* and **methods** for their use. These compounds may contain a triterpene moiety, such as acacic or oleanolic acid, to which oligosaccharides and monoterpenoid moieties are attached. The mixtures and compounds have properties related to the regulation of apoptosis and cytotoxicity of cells and exhibit potent anti-tumor effects against a variety of tumor cells.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 10 OF 13 USPATFULL on STN

ACCESSION NUMBER: 2003:57141 USPATFULL

TITLE: Triterpene compositions and **methods** for use thereof

INVENTOR(S): Arntzen, Charles J., Ithaca, NY, UNITED STATES  
Gutterman, Jordan U., Houston, TX, UNITED STATES

PATENT ASSIGNEE(S): Research Development Foundation, Carson City, NV, 89703 (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003039705	A1	20030227
	US 6746696	B2	20040608
APPLICATION INFO.:	US 2001-992837	A1	20011116 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1999-314691, filed on 19 May 1999, PENDING		

	NUMBER	DATE	
PRIORITY INFORMATION:	US 1998-99066P	19980903 (60)	<--
	US 1998-85997P	19980519 (60)	<--
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Robert E. Hanson, FULBRIGHT & JAWORSKI L.L.P., Suite 2400, 600 Congress Avenue, Austin, TX, 78701		
NUMBER OF CLAIMS:	119		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	55 Drawing Page(s)		
LINE COUNT:	8112		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides novel saponin mixtures and compounds which are isolated from the species *Acacia victoriae* and **methods** for their use. These compounds may contain a triterpene moiety, such as acacic or oleanolic acid, to which oligosaccharides and monoterpenoid moieties are attached. The mixtures and compounds have properties related to the regulation of apoptosis and cytotoxicity of cells and exhibit potent anti-tumor effects against a variety of tumor cells.

The present application is a continuation-in-part of co-pending U.S. Patent Application Ser. Number 60/099,066, filed Sep. 3, 1998, and a continuation-in-part of U.S. patent application Ser. Number 60/085,997, filed May 19, 1998. The entire text of each of the above-referenced disclosures is specifically incorporated by reference herein without disclaimer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 11 OF 13 USPATFULL on STN

ACCESSION NUMBER: 2003:44428 USPATFULL

TITLE: Triterpene compositions and **methods** for use thereof

INVENTOR(S): Haridas, Valsala, Houston, TX, UNITED STATES  
Gutterman, Jordan U., Houston, TX, UNITED STATES

PATENT ASSIGNEE(S): Research Development Foundation, Carson City, NV,  
UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003031738	A1	20030213
	US 6962720	B2	20051108
APPLICATION INFO.:	US 2001-720	A1	20011130 (10)
RELATED APPLN. INFO.:	Division of Ser. No. US 1999-314691, filed on 19 May 1999, PENDING		

	NUMBER	DATE	
PRIORITY INFORMATION:	US 1998-99066P	19980903 (60)	<--
	US 1998-85997P	19980519 (60)	<--

DOCUMENT TYPE: Utility  
 FILE SEGMENT: APPLICATION  
 LEGAL REPRESENTATIVE: Robert E. Hanson, FULBRIGHT & JAWORSKI L.L.P., 600 Congress Avenue, Suite 2400, Austin, TX, 78701  
 NUMBER OF CLAIMS: 119  
 EXEMPLARY CLAIM: 1  
 NUMBER OF DRAWINGS: 55 Drawing Page(s)  
 LINE COUNT: 8138

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides novel saponin mixtures and compounds which are isolated from the species *Acacia victoriae* and **methods** for their use. These compounds may contain a triterpene moiety, such as acacic or oleanolic acid, to which oligosaccharides and monoterpenoid moieties are attached. The mixtures and compounds have properties related to the regulation of apoptosis and cytotoxicity of cells and exhibit potent anti-tumor effects against a variety of tumor cells.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 12 OF 13 USPATFULL on STN

ACCESSION NUMBER: 2002:224280 USPATFULL

TITLE: Triterpene compositions and **methods** for use thereof

INVENTOR(S): Arntzen, Charles J., Ithaca, NY, United States  
 Blake, Mary E., Tucson, AZ, United States  
 Gutterman, Jordan U., Houston, TX, United States  
 Hoffmann, Joseph J., Tucson, AZ, United States  
 Jayatilake, Gamini S., Broomfield, CO, United States  
 Bailey, David T., Boulder, CO, United States

PATENT ASSIGNEE(S): Research Development Foundation, Carson City, NV, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6444233	B1	20020903
APPLICATION INFO.:	US 1999-314691		19990519 (9)

	NUMBER	DATE	
PRIORITY INFORMATION:	US 1998-99066P	19980903 (60)	<--
	US 1998-85997P	19980519 (60)	<--

DOCUMENT TYPE: Utility  
 FILE SEGMENT: GRANTED  
 PRIMARY EXAMINER: Tate, Christopher R.  
 ASSISTANT EXAMINER: Flood, Michele C.  
 LEGAL REPRESENTATIVE: Fulbright & Jaworski LLP  
 NUMBER OF CLAIMS: 18  
 EXEMPLARY CLAIM: 1  
 NUMBER OF DRAWINGS: 73 Drawing Figure(s); 43 Drawing Page(s)  
 LINE COUNT: 7526

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides novel saponin mixtures and compounds which are isolated from the species *Acacia victoriae* and **methods** for their use. These compounds may contain a triterpene moiety, such as acacic or oleanolic acid, to which oligosaccharides and monoterpenoid moieties are attached. The mixtures and compounds have properties related to the regulation of apoptosis and cytotoxicity of cells and exhibit potent anti-tumor effects against a variety of tumor cells.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L28 ANSWER 13 OF 13 USPATFULL on STN

ACCESSION NUMBER: 2002:81026 USPATFULL

TITLE: **Methods** for the treatment of CD7+ viral infection with TXU-7-PAP

INVENTOR(S): Uckun, Fatih M., White Bear Lake, MN, United States

PATENT ASSIGNEE(S): Regents of the University of Minnesota, Minneapolis, MN, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6372217	B1	20020416
APPLICATION INFO.:	US 1998-14028		19980127 (9)

	NUMBER	DATE	
PRIORITY INFORMATION:	US 1997-48364P	19970603 (60)	<--
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Scheiner, Laurie		
ASSISTANT EXAMINER:	Parkin, Jeffrey S.		
LEGAL REPRESENTATIVE:	Schwegman, Lundberg, Woessner & Kluth, P.A.		
NUMBER OF CLAIMS:	9		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	5 Drawing Figure(s); 5 Drawing Page(s)		
LINE COUNT:	2076		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides a novel biotherapeutic agent comprising a monoclonal antibody TXU-7, which is specific to the CD7 antigen, conjugated to the pokeweed antiviral protein (PAP). This immunoconjugate was designated TXU-7-PAP. The CD7 antigen is present on the surface of the majority of T-lymphocytes, including those that are the cellular target of the human immunodeficiency virus (HIV). The pokeweed antiviral protein displays broad spectrum antiviral activity toward various plant, animal, and human viruses, including HIV. Prior attempts to generate PAP immunoconjugates with anti-HIV activity have been unsuccessful due to the poor stability of the immunoconjugate in vivo. However, the TXU-7-PAP immunoconjugate described herein displayed potent antiviral activity against HIV-1 and low toxicity in various animal models. Preliminary clinical studies in HIV-1-infected patients demonstrated that the immunoconjugate was well-tolerated and **reduced** the HIV-1 viral load. Thus, this immunoconjugate is expected to improve the prognosis of HIV-1-infected patients.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.



=> d his ful

(FILE 'HOME' ENTERED AT 16:16:07 ON 29 JUL 2006)

FILE 'REGISTRY' ENTERED AT 16:16:31 ON 29 JUL 2006  
E SHIMP LAWRENCE/CN

FILE 'HCAPLUS' ENTERED AT 16:16:31 ON 29 JUL 2006  
E SHIMP LAWRENCE/AU

L1 43 SEA ABB=ON ("SHIMP LARRY"/AU OR "SHIMP LAWRENCE A"/AU OR  
"SHIMP LAWRENCE"/AU OR "SHIMP LAWRENCE A"/AU OR "SHIMP  
LAWRENCE ALBERT"/AU)  
L2 5 SEA ABB=ON L1 AND ?STERILIZ?  
L3 ANALYZE L2 4 CT : 17 TERMS

FILE 'REGISTRY' ENTERED AT 16:43:18 ON 29 JUL 2006

L4 2 SEA ABB=ON (ARGON OR NITROGEN)/CN  
L5 3 SEA ABB=ON (HYDROGEN OR HYDROGEN SULFIDE OR CARBON MONOXIDE)/C  
N

FILE 'HCAPLUS' ENTERED AT 16:43:41 ON 29 JUL 2006

L6 26056 SEA ABB=ON ?BIOLOGICS? OR ?BIOLOGICAL?(W) (?MATERIAL? OR  
?TISSUE?)  
L7 225 SEA ABB=ON L6 AND (?STERILIZ? OR ?DEACTIVAT?)  
L8 0 SEA ABB=ON L7 AND (?ADVENTITIOUS?(W) ?MATERIAL?)  
L9 1 SEA ABB=ON L7 AND ?ADVENTITIOUS?  
L10 0 SEA ABB=ON L7 AND (?ATMOSPHERE?(3A) ?PROTECT?)  
L11 54 SEA ABB=ON L7 AND (?INERT? OR ?REDUC? OR ?VACUUM?)  
L12 10 SEA ABB=ON L11 AND (L4 OR ?ARGON? OR ?NITROGEN?)  
L13 5 SEA ABB=ON L11 AND (L5 OR ?HYDROGEN? OR ?HYDROGEN?(W) ?SULFID?  
OR ?CARBON?(W) ?MONOXID?)  
L14 54 SEA ABB=ON L11 OR L12 OR L13 OR L9  
L15 27 SEA ABB=ON L14 AND (?BONE? OR ?FOOD? OR ?TISSUE?)  
L16 12 SEA ABB=ON L15 AND (PRD<20010104 OR PD<20010104) *12 cite from CAPLUS*

FILE 'MEDLINE, BIOSIS, EMBASE, JAPIO, JICST-EPLUS, WPIDS' ENTERED AT  
16:47:30 ON 29 JUL 2006

L17 51 SEA ABB=ON L15  
L18 48 DUP REMOV L17 (3 DUPLICATES REMOVED)  
L19 16 SEA ABB=ON L18 AND ?BONE? *16 cite from*

FILE 'USPATFULL' ENTERED AT 16:54:52 ON 29 JUL 2006

L20 3134 SEA ABB=ON L15 AND (PRD<20010104 OR PD<20010104)  
L21 1839 SEA ABB=ON L20 AND ?BONE?  
L22 41 SEA ABB=ON L21 AND ?ADVENTITIOUS?  
L23 41 SEA ABB=ON L22 AND (?STERILIZ? OR ?ACTIVAT?)  
L24 41 SEA ABB=ON L23 AND ?METHOD?  
L25 0 SEA ABB=ON L24 AND ?THERAP?(W) ?USEFUL?(W) (?SUBSTANCE? OR  
?DEVICE?)  
L26 1 SEA ABB=ON L24 AND ?THERAP?(W) ?USEFUL?  
L27 32 SEA ABB=ON L24 AND ?GRAFT?  
L28 13 SEA ABB=ON L27 AND (L4 OR ?ARGON? OR ?NITROGEN?) *13 cite from US Patfull*

FILE HOME

FILE HCAPLUS

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FILE COVERS 1907 - 29 Jul 2006 VOL 145 ISS 6  
FILE LAST UPDATED: 28 Jul 2006 (20060728/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

#### FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 27 JUL 2006 HIGHEST RN 896463-29-9  
DICTIONARY FILE UPDATES: 27 JUL 2006 HIGHEST RN 896463-29-9

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TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

#### FILE MEDLINE

FILE LAST UPDATED: 28 Jul 2006 (20060728/UP). FILE COVERS 1950 TO DATE.

On December 11, 2005, the 2006 MeSH terms were loaded.

The MEDLINE reload for 2006 is now (26 Feb.) available. For details on the 2006 reload, enter HELP RLOAD at an arrow prompt (=>).  
See also:

<http://www.nlm.nih.gov/mesh/>  
[http://www.nlm.nih.gov/pubs/techbull/nd04/nd04\\_mesh.html](http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html)  
[http://www.nlm.nih.gov/pubs/techbull/nd05/nd05\\_med\\_data\\_changes.html](http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_med_data_changes.html)  
[http://www.nlm.nih.gov/pubs/techbull/nd05/nd05\\_2006\\_MeSH.html](http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_2006_MeSH.html)

OLDMEDLINE is covered back to 1950.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2006 vocabulary.

This file contains CAS Registry Numbers for easy and accurate substance identification.

#### FILE BIOSIS

FILE COVERS 1969 TO DATE.

CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT  
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 26 July 2006 (20060726/ED)

FILE EMBASE

FILE COVERS 1974 TO 28 Jul 2006 (20060728/ED)

EMBASE has been reloaded. Enter HELP RLOAD for details.

EMBASE is now updated daily. SDI frequency remains weekly (default)  
and biweekly.

This file contains CAS Registry Numbers for easy and accurate  
substance identification.

FILE JAPIO

FILE LAST UPDATED: 3 APR 2006 <20060403/UP>

FILE COVERS APRIL 1973 TO DECEMBER 22, 2005

>>> GRAPHIC IMAGES AVAILABLE <<<

>>> NEW IPC8 DATA AND FUNCTIONALITY NOT YET AVAILABLE IN THIS FILE.  
USE IPC7 FORMAT FOR SEARCHING THE IPC. WATCH THIS SPACE FOR FURTHER  
DEVELOPMENTS AND SEE OUR NEWS SECTION FOR FURTHER INFORMATION  
ABOUT THE IPC REFORM <<<

FILE JICST-EPLUS

FILE COVERS 1985 TO 24 JUL 2006 (20060724/ED)

THE JICST-EPLUS FILE HAS BEEN RELOADED TO REFLECT THE 1999 CONTROLLED  
TERM (/CT) THESAURUS RELOAD.

FILE WPIDS

FILE LAST UPDATED: 27 JUL 2006 <20060727/UP>

MOST RECENT DERWENT UPDATE: 200648 <200648/DW>

DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,  
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[http://www.stn-international.de/stndatabases/details/ipc\\_reform.html](http://www.stn-international.de/stndatabases/details/ipc_reform.html) and  
<http://scientific.thomson.com/media/scpdf/ipcrdwpf.pdf> <<<

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FILE USPATFULL

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 27 Jul 2006 (20060727/PD)

FILE LAST UPDATED: 27 Jul 2006 (20060727/ED)

HIGHEST GRANTED PATENT NUMBER: US7082615

HIGHEST APPLICATION PUBLICATION NUMBER: US2006168703

CA INDEXING IS CURRENT THROUGH 27 Jul 2006 (20060727/UPCA)

ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 27 Jul 2006 (20060727/PD)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Apr 2006  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Apr 2006

=> log hold

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FULL ESTIMATED COST

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